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ABSTRACT

"The survey staff has attempted to look into all facets of the program of education provided by the Eloy Elementary School District, including facilities, curriculum, personnel, finances, maintenance and operations, and general administration. Perhaps foremost among the problems noted is the need for an articulated, sequential plan of subject presentation in all grades in all schools." "The report of the survey contains numerous suggestions and recommendations covering all subjects of the curriculum, as well as recommendations pertaining to organization and administration of the school, special educational services, pupil personnel services--including transportation, health services and food services--in addition to recommendations concerning personnel, finance and business management and modification of existing educational facilities." There are 23 tables, 5 figures, 6 supplements, and 1 map. (BO)

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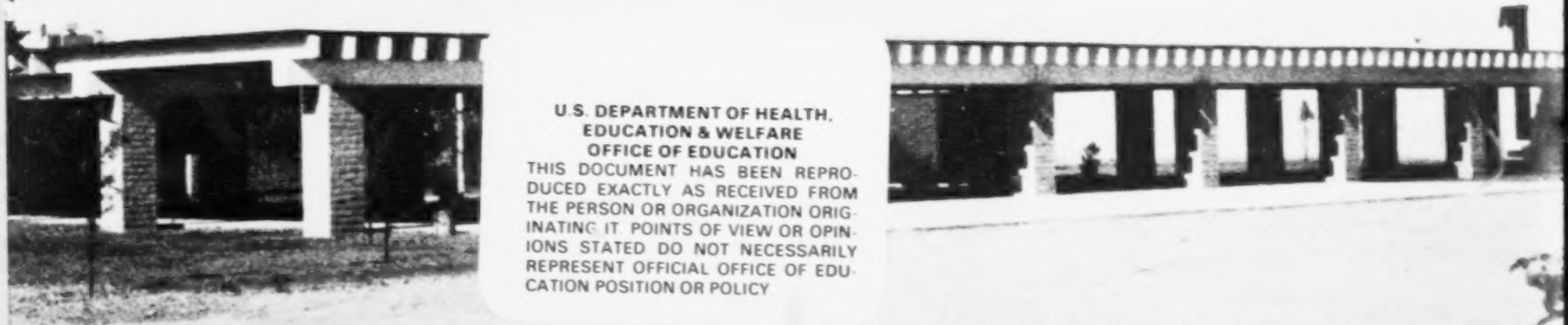
ELOY ELEMENTARY SCHOOLS



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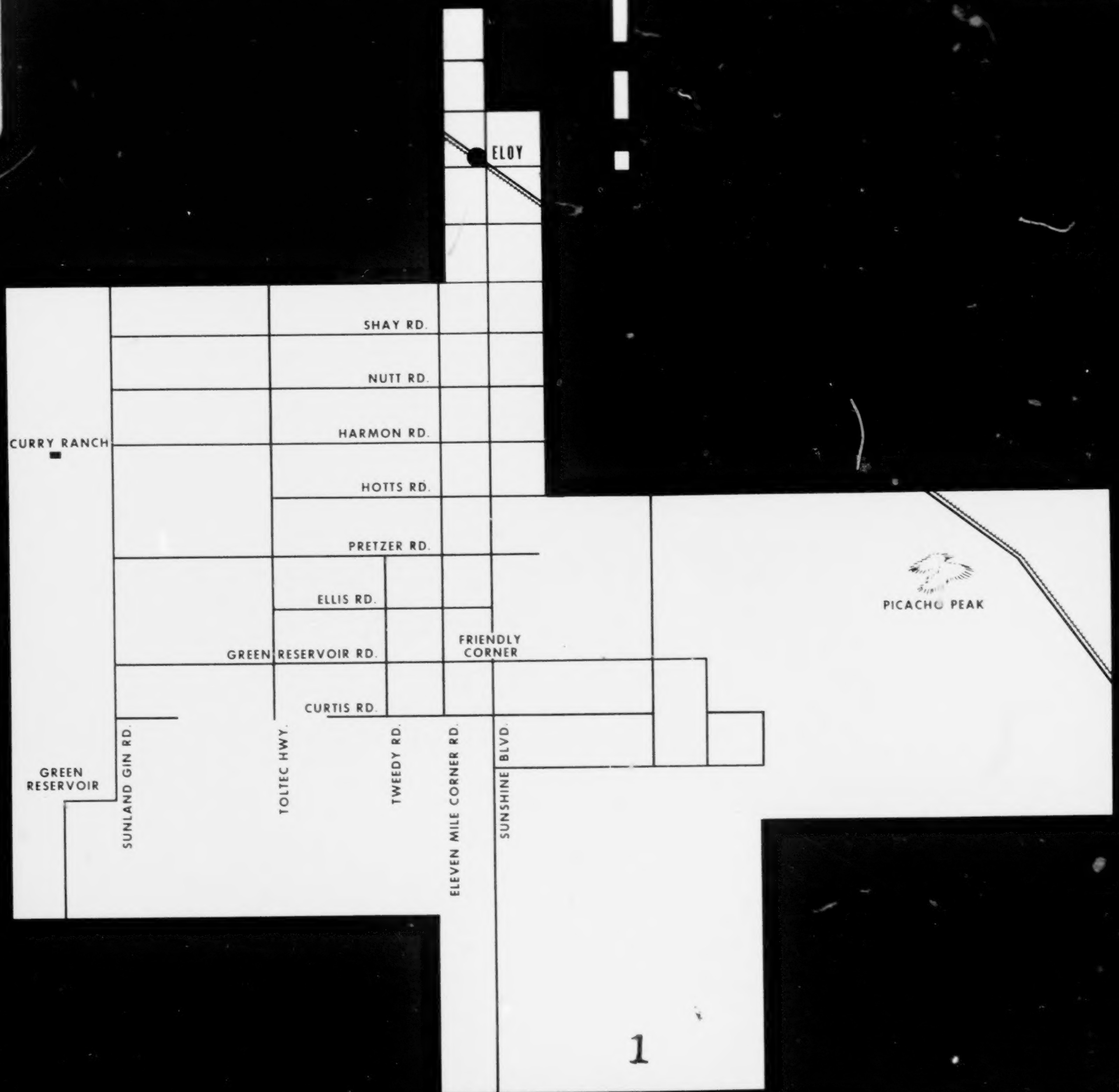
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TEMPE, ARIZONA
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LETTER OF TRANSMITTAL

TO THE BOARD OF TRUSTEES:

The members of the survey team submit this survey report for your careful examination and reference. This report presents recommendations which represent the consensus of the survey team after extensive study and evaluation.

The report presents analyses and recommendations for the Eloy Elementary Schools in the areas of greatest significance, including the following: 1) district organization and administration 2) pupil personnel data 3) the educational program 4) special educational services 5) pupil personnel services 6) staff personnel 7) finance and school management 8) school plant facilities.

The survey team had excellent cooperation from many sources during the study. The assistance of all concerned is gratefully acknowledged.

The survey team believes that this report will be of significant value to the Board and the Administration as they assume the responsibility for providing an excellent educational program for the Eloy Elementary District

Respectfully submitted

Merwin Deever, Director
Howard J. Demeke, Associate
Director of Survey

jr

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CHAPTER I

THE COMMUNITY SETTING

I. HISTORY AND DEVELOPMENT OF ELOY

The City of Eloy and the surrounding area is located in the Santa Cruz basin area in the western section of Pinal County, Arizona. Eloy is bisected by a federal highway, running in an east-west direction, which also parallels the main line of the Southern Pacific Railroad. A new interstate highway will cross the southern sections of Eloy, also running in an east-west direction, about one-half mile south of the center of Eloy.

The early development of Eloy was dependent upon cotton and agriculture, which thrived as a result of the rich soil in the area. To the present day, Eloy is a center of cotton production in the Southwest.

Eloy was incorporated as a town in 1949 and as a city in 1960. The city government consists of a city manager and mayor, with seven city council members who are elected every two years. There is a volunteer fire department and also a police department consisting of seven patrolmen maintained by the city.

The present population of Eloy is 5380, which represents an increase of 10 per cent since the 1960 census. The 1940 population of 579 grew to 3580 in 1950, an increase of 518 per cent. The 1960 population of 4900 represented an increase of 36 per cent over the 1950 population.

The community organizations in the City of Eloy include fourteen civic, service, or fraternal organizations and fifteen youth organizations. These include church, school, and service groups. A community library which contains about 8,000 volumes serves the general public. There are about ten religious denominations that have a church located in Eloy.

The weekly newspaper, "The Enterprise", contains a dominance of Eloy news, although it also serves the entire area of Pinal County. The 125 firms in the city employ about 750 people. The railroad, the farms, the state highway department, and the school districts employ a good percentage of the working population of Eloy.

The excellent climate of the Santa Cruz basin, including the City of Eloy, yields an average of 350 days of sunshine each year. The average rainfall does not usually exceed eight inches.

II. PINAL COUNTY

Population

Pinal County has evidenced a rapid increase in population during the past 25 years. The 1940 pre-war population of 28,841 increased to 43,191 in 1950, approximately 50 per cent; and to 62,673 in 1960, a 45 per cent increase from 1950. The present population estimate of 69,000 is an increase of 10 per cent over the 1960 population. Table I presents the population figures for Pinal County from 1940 to 1965.

TABLE I

Population of Pinal County

Year	1940	1950	1960	1965
Pinal County	28,841	43,191	62,673	69,000 (estimate)

Economics

Pinal County is located in Southern Arizona and includes an area of 5,324 square miles. The area is generally desert country, with occasional mountains in the northern and eastern sections of the county.

The primary sources of the County's economy are agriculture, mining, and tourism. The agricultural areas of the county are generally located in the central and western sections of the county, while mining is generally located in the northern and eastern sections of the county.

Agriculture. The principle source of the economy in the central and western sections of Pinal County is agriculture. Cotton, grains, alfalfa, and vegetables are produced in abundance in the county.

Pinal County contains 37 per cent of the cotton acreage of the State of Arizona and the yield of cotton in Arizona is nearly twice the national average. Thus, Pinal County is a very important area of cotton production in the United States. As a result of recent mechanization and improvement of picking and ginning processes, the cotton industry requires more skilled labor than in the past and a corresponding decrease in unskilled labor.

Mining. The mining sections of the county are rich in natural resources, including copper, silver, gold, lead, zinc, and uranium. Several towns in the northern and eastern sections of Pinal County have been established and maintained by different mining corporations. The source of revenue and support for the mining communities has been the existence and operation of the mines.

Arizona leads the nation in copper production, producing 55 per cent of the copper mined in the United States. Pinal County leads Arizona in copper production, producing 84 per cent of the state total. The net assessed valuation of mining property in Pinal County in 1962 was $59,703,290, which was 22 per cent of the net assessed valuation of mining property in Arizona.

Tourism. Since 1945, the number of tourists visiting Pinal County has increased; many people visit during the winter months, when the desert area is warmed by the daily sunshine. As a result of the tourist increase, retirement communities have been developed. Arizona City in the western section of Pinal County and Palm Springs in the northern section of the County are two of the recently established retirement communities. Francisco Grande, located west of Casa Grande, provides a spring training location for a major league baseball club and also serves as a tourist hotel. Recreational facilities are generally included in the retirement communities and in the resort hotels.

III. ELOY ELEMENTARY SCHOOL DISTRICT

History and Development

The Eloy Elementary School District had three operating schools: South, Primary, and Central Schools. A fourth school, not yet occupied, was expected to be opened during the current school year.

The South School, containing grades one and two, was located on the northwest corner of Alsdorf and Curiel Streets. The certificated staff at South School included a Head Teacher and three teachers.

The Primary School, located on 11th and Curiel Streets, contained grades one, two, and three and also two fourth grade classes. The certificated staff at Primary School included a principal and twenty-one teachers.

The Central School, located at 110 West Fifth Street, contained grades four through eight. The certificated staff of Central School had 31 teachers, which included music, home economics, industrial arts, and physical education.

The Eloy Elementary School District Office was located in the Central School, where the Superintendent of Schools also served as the principal of Central School.

In addition to the Schools of the Eloy Elementary School District, the Santa Cruz Union High School is located in the City of Eloy.

The average daily attendance in the schools in the Eloy Elementary School District for the school year 1964-1965 was 1458. The average daily attendance in elementary schools in Pinal County for the school year 1964-1965 was 12,887. The Eloy Elementary District enrolled 11 per cent of the elementary school pupils in Pinal County schools during the 1964-1965 school year.

The average daily attendance in elementary and high schools of the Eloy Elementary School District and the Santa Cruz Union High School District for the school year 1964-1965 was 1853. For Pinal County, the average daily attendance in elementary and high school was 16,735. Eloy schools (including the Santa Cruz Union High School District) represented 11 per cent of this total.

With 16,735 the average daily attendance in elementary and high schools in Pinal County, and a county population of 69,000 (estimated), 24 per cent of the population was attending elementary or high schools. By comparison, the State of Arizona had about 28 per cent of its population in the school age group (5 to 17 years).

School-Community Relationships

The community can become informed about its schools through the media of school publications, announcements, and "The Enterprise", the local weekly newspaper. "The Enterprise" was given national recognition for its award-winning editorial in February, 1960. A continuing policy of disseminating school news through the weekly newspaper should result in an informed community.

The school and the community should endeavor to work together to provide the best education possible for its children. Parent-teacher conferences, open-house, citizen-committees, and community attendance at Board of Trustee meetings can help to create good relationships between the school and the community that it serves. A parent-teacher association can be most beneficial in achieving good relationships between the school and the community.

The electorate of the Eloy Elementary School District should be encouraged to partake in any of the school elections, bond issues, and special elections called by the district.

The future growth and development of the western section of Pinal County, including the City of Eloy, will be determined by the decisions of private developers and specific industries. The actions of public officials and public organizations will also assist in forming a pattern of growth. The Eloy Elementary School District, in assuming an increase in its school population in the years ahead, should become a leading factor in the community.

The following chapters of this report of survey evaluate the present status of the various aspects of the school district and present recommendations which will assist in developing excellent educational programs.

CHAPTER II

DISTRICT ORGANIZATION AND ADMINISTRATION

INTRODUCTION

This chapter describes the Eloy Elementary District and its administrative organization and presents recommendations for future improvements.

It is a function of the state to determine the school districts and their basic organization patterns, but the responsibility for internal organization remains with the local school district. Good administrative organization within the school district has much to do with the effectiveness of the schools, and sound and effective administrative procedures will greatly enhance the effectiveness of the school in providing appropriate educational experiences for all children within the district. The board of trustees and the district's administrators have a significant responsibility and opportunity in providing an organizational structure within the district that functions at a high level of effectiveness.

I. DISTRICT ORGANIZATION

Basic Organization

Eloy School District No. 11 is an elementary school district providing education for children, grades one through eight. At the time of the survey there were three schools in operation: 1) South School, grades one and two 2) Primary School, grades one through three and one fourth grade room, and 3) Central School, grades four through eight. There were two administrators, the superintendent, who served as principal of the Central School, and a principal who was responsible for South School and Primary School. Also located in Eloy is Santa Cruz Valley Union High School which is under a separate district, functionally and legally. There is no relationship between the two school districts. Eloy Elementary School graduates attend the Santa Cruz Valley Union High School.

District Boundaries

Eloy School District No. 11 is a large district encompassing approximately 221 square miles. A legal description of the district is included herewith.

> Beginning NW corner of Section 19 T8S, Range 7E, thence to NW corner of Section 23, T8S, Range 6E, thence South approximately 11½ miles to SW corner of Section 13, T10S, Range 7E, thence South approximately 3½ miles to Pinal County line and the SW corner of Section 31, T10S, Range 8E, thence East along County line approximately 6 miles to SE corner Section 36, T10S, Range 8E, thence North approximately 6 miles to SE corner Section 36,

T9S, Range 8E, thence East to South quarter of Section 31, T9S, Range 10E, thence North to the North quarter corner of Section 6, T9S, Range 10E, thence West to SE corner of Section 32, T8S, Range 8E, thence North to NE corner of Section 5, T8S, Range 8E, thence West to SE corner of Section 31, T7S, Range 8E, thence North to NE corner of Section 30, T7S, Range 8E, thence West to NW corner of Section 30, T7S, Range 8E, thence South to NE corner of Section 24, T8S, Range 7E, thence West approximately 6 miles to the point of beginning.

Approximately 221 square miles.

Figure 1 presents a map of the Eloy Elementary School District.

Criteria for Good Organization

The legal structure for school districts in the State of Arizona provides elementary districts, Grades 1-8 and four kinds of high school districts, Grades 9-12. There are some disadvantages in the dual systems when board members serve a single district in that frequently there is a lack of communication and articulation in the educational programs. It is important that school districts provide an educational program with a "longitudinal look" at the educational experiences of children from the time they enter Grade 1 until they have completed their schooling with high school graduation.

Although the legal designation of school districts is the responsibility of the State and present statutes provide for dual administrative arrangements--elementary districts and high school districts--there are a number of school districts which operate as a single system where their boundaries are co-terminous and the same board members serve both districts. Such an arrangement is not currently possible for Eloy.

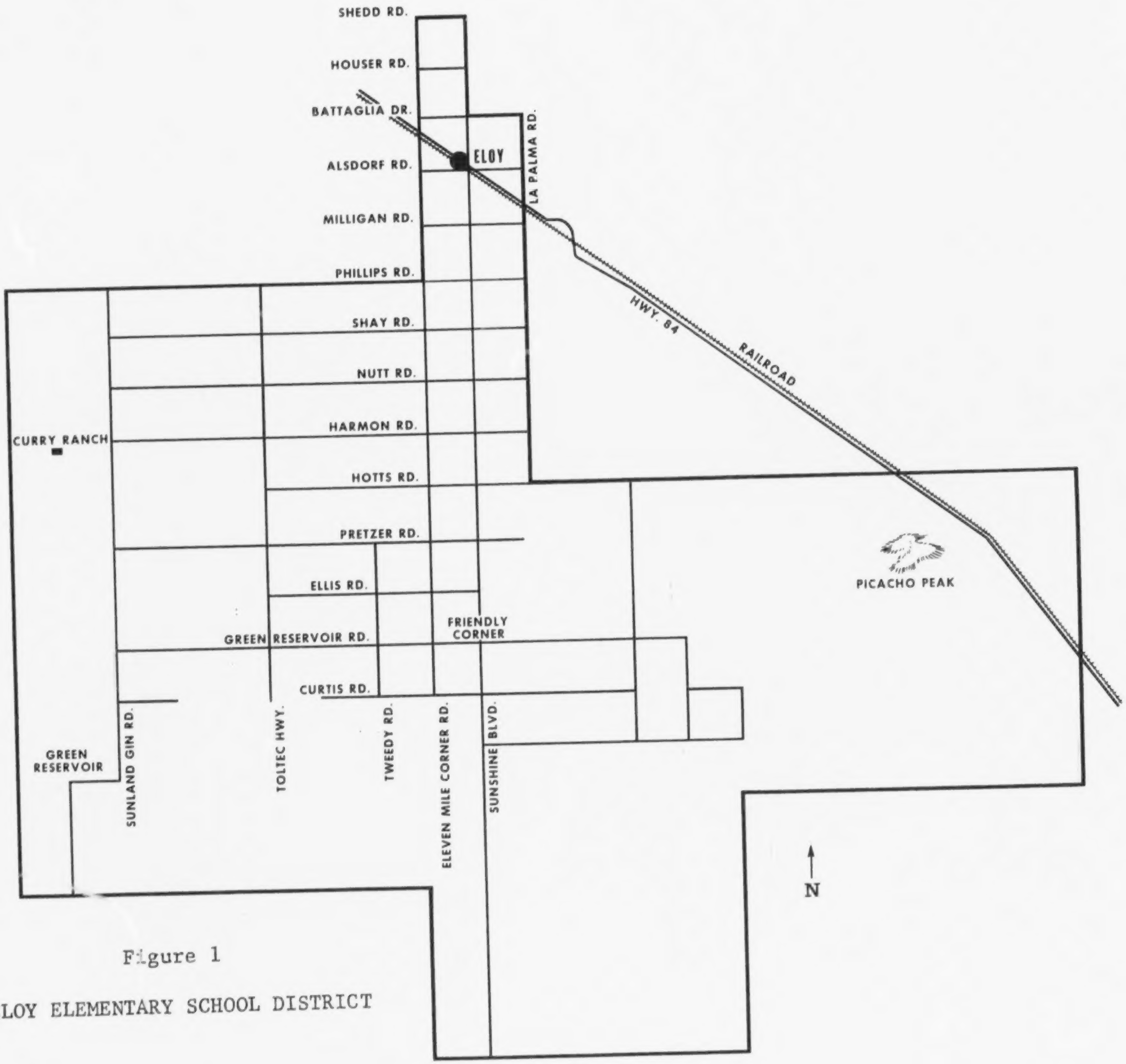
Internal organization of the district is the responsibility of the Board and it should consider practical criteria in determining the organizational scheme. The Board should ask itself these questions in a planning session at least once annually:

1. Is the design simple and functional, yet comprehensive? Is the structure clear and easily understood by employees and patrons of the district?

2. Are the schools within the district properly organized with regard to size, curriculum and special programs to emphasize quality and promote maximum effectiveness?

3. Does the organization lend easily to communication with, and among its segments?

4. Does it tend to produce a workable degree of autonomy with respect to policy and philosophy within and among its segments?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ALSDORF RD.
ELOY
LA PALMA RD.
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HOTTS RD.
PRETZER RD.
ELLIS RD.
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FRIENDLY CORNER
CURTIS RD.
HWY. 84
RAILROAD
PICACHO PEAK
CURRY RANCH
GREEN RESERVOIR
SUNLAND GIN RD.
TOLTEC HWY.
TWEEDY RD.
ELEVEN MILE CORNER RD.
SUNSHINE BLVD.
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Figure 1

ELOY ELEMENTARY SCHOOL DISTRICT

5. Is the organization plan particularly well-suited to the size of the district?

6. Is the organization plan capable of meeting the functions, objectives and goals of the District?

7. Is there easy designation and coordination of authority and responsibility in the scheme?

8. Does the organization scheme facilitate and emphasize quality instruction?

II. ORGANIZATION AND FUNCTIONS OF THE BOARD

The Governing Board and its Functions

The Board of Trustees is the legally constituted body which is responsible for the proper operation of the schools. The school board in Arizona is provided by statute as part of the public educational system guaranteed by Article II of the Constitution of the State of Arizona. The local school board is in reality a part of the state government acting in behalf of the State at the local level to provide the basic educational program for Arizona in the local school district. The Eloy Board of Trustees has five members, having been increased from three to five members in January, 1957.

The Board of Trustees was rated by the survey team in terms of the following criteria:

1. Does each board member appear willing to take a stand on issues?

2. Has there been continuity of service among members to provide carry-over experience in board policy and matters?

3. Has the membership been drawn from representative citizenry as contrasted to domination by specific groups?

4. Has the length of tenure in office been sufficiently long to match the average length of tenure of school board members in Arizona?

5. Does each board member indicate a desire to serve even though the requirements of time for adequate participation are heavy?

6. Does each board member indicate sincerity of purpose in terms of doing what is best for Eloy, even though compromise on issues is required?

7. Is there seriousness of purpose and dedication to the tasks at hand on the part of each board member?

8. Are there technical and professional skills among board members?

9. Do most of the board members have family status and have children of school age?

10. Do the board members have appropriate civic activities and responsibilities?

11. Do some board members occupy positions of leadership in community councils, civic activities or cultural groups?

12. Is there a spirit of cohesiveness on the part of each board member toward the total board or its actions?

13. Does each member command respect in the community and thereby maintain a high level of community prestige and esteem?

14. Does each member place his solemn obligations of board duty above prejudices or bias which might be created by his allegiance to interest groups or segments of interest groups?

15. Is there an attitude of friendly concern on the part of each board member for the problems confronting the school district?

The Eloy Board of Trustees rates very high according to these criteria; the members are dedicated to improvement of the schools and to providing the best possible educational opportunities for the pupils.

The terms of the board members are for five years and expire at the rate of one annually, effective in January. Since 1955, ten different individuals have served on the board and the average tenure has been approximately seven years. The present board members have served from two to ten years, except for the recent appointee. The good continuity of board membership has helped develop stability and confidence in the schools.

Responsibilities

The board's responsibilities include all aspects of the school and board members must be aware of the Board's responsibilities and provide the necessary means to fulfill its legislative and judicial or appraisal obligations. As a legislative body, the board establishes policy for the operation of the entire educational program.

In general, the powers of the board are only those which are expressly stated or implied as necessary to carry out the purposes of the district. Board members are official representatives of the patrons, and have legal authority only when serving in a board meeting--the members of the board are precisely that (members) and have no power to act individually.

The board can contract in the name of the district, sue and be sued, and is liable for the obligations of the district. Boards are subject to regulations from Federal and State governments, Federal and State Supreme Court Decisions, decisions of the county superior courts, opinions of the county attorney and regulations of the county school superintendent and the county board of supervisors acting in their educational capacities.

Within their legislative and judicial responsibilities boards are concerned with the educational program, personnel, school plant planning and maintenance, school community relations, finance, and special education. The board obviously plays a very important role in the organization and operation of the school.

School Board Meetings

The board should hold at least one regular meeting each month. This is required by law during the school year. Special meetings should be held to a minimum with sufficient notification to advise both board members and the public of the time, place, and subject to be considered. In order to gain and keep the public support and good will, the community must be well informed about the activities of the district. Board meetings are open meetings and the public should feel free to attend. The records indicate the board has met regularly and has had special meetings as needed. They have met the problems of the District in a forthright manner with the interest of the pupils and the community as a trust.

The manner in which meetings are conducted may vary between boards, but a regular order is desirable. The following order is suggested:

1. Call to order
2. Roll call
3. Reading and/or approval of the minutes of previous meeting
4. Financial report
5. Communications and petitions
6. Regular report of the superintendent
7. Unfinished business
8. New business
9. Miscellaneous
10. Delegations
11. Adjournment

It is important to effect a team approach between the board and superintendent who is the chief executive officer of the board. Boards are charged with policy-making responsibilities; however, the superintendent and his staff should formulate and recommend policy to the board. School policies are usually concerned with the following general areas:

1. School board legal status--responsibilities and procedures
2. Philosophy and goals of the district
3. District organization of schools
4. Administrative organization
5. Staff personnel
    a. Qualifications, duties and responsibilities of certificated personnel
    b. Qualifications, duties and responsibilities of classified personnel
6. Pupil personnel
7. Instructional program
8. Business and general policies
9. Appraisal and evaluation methods and criteria
10. The school plant
11. School-community relations

It is recommended that the board set aside part of a meeting once a month throughout the school year to hear reports of its educational program. These reports should be about the various segments of the curriculum. Free discussion and questions should follow. The board will thus become more directly involved with the educational program and not just the business operation of the district.

Procedures

It is recommended that board policies be developed in writing by the Eloy District, properly codified and brought up to date. They should be duplicated and made available to the appropriate persons.

The superintendent is the chief executive officer of the board, and as such is responsible for executive or administrative functions. He should be charged with the implementation of the board policy and board decisions. He should have considerable freedom of operation within the limits of board policies. All staff members, certificated and classified, should be responsible to the superintendent. The superintendent is then responsible to the board for the operation of the schools.

Distinct, clear-cut lines of authority should be established throughout the total staff for achieving the best rapport and consideration. Among the powers most commonly delegated by the board to the administrators are:

1. Nomination of staff personnel

2. Organization of the curriculum of the school

3. Care and maintenance of buildings, grounds and equipment

4. Planning of new facilities

5. Supervision of in-service training of staff.

The superintendent will commonly re-delegate part of these powers, but he is still responsible to the board for them.

It is appropriate for all complaints and problems to be channeled through the superintendent and not directly to the board. As the educational leader, he can often impart the necessary information and avert bringing unnecessary problems before the board. In the event he feels that the board needs to consider the problem, he will place it on the agenda of a future meeting, collect the necessary data and assist the board in arriving at a satisfactory solution.

Records

The Eloy Board of Trustees meets the first Wednesday of each month at 3:00 p.m. and keeps a record of official actions in approved minutes. The records are available from 1951 to the present. A vital board's activity is the keeping of its official minutes. Board actions, once approved in the minutes, become the legal document and record of the board's intent and actions. The following criteria are suggested for good board records:

1. Are the minutes kept in neat typewritten form on good quality bond paper?

2. Are the minutes kept in such continuity that later deletion of any section would be obvious upon inspection?

3. Are the minutes properly indexed for each fiscal year?

4. Are the minutes properly bound in a good quality binder on an annual or biennial basis?

5. Are all minutes signed by the president and clerk of the board upon approval?

6. Are minutes kept in a fireproof, reasonably safe depository with an extra carbon copy placed elsewhere for safety?

7. Do minutes attach documents or descriptive materials which have been made a part of the board action?

8. Are the minutes readily available for scrutiny by properly identified citizens in the district?

9. Does each board member have opportunity to study the minutes of a previous meeting before approval?

10. Do the minutes contain exact record of each item of business which was considered?

11. Is there a complete record of action taken including the maker and seconder of the motion, and the outcome of voting on each subject or topic formally considered?

12. Do the minutes contain a complete text of information which was taken under advisement or consideration by the board?

13. Are all resolutions, building contracts, and policies approved properly identified by consecutive numbering in each category?

14. Are all approvals for employment or contracted appointments as well as terminations made a matter of record?

15. Is a careful record kept of all calls for bids, bids received and action taken on bids?

16. Are copies of the annual budget as approved, salary schedules and other official documents made a part of the minutes?

17. Do the minutes contain in summary form salient points on operation or function of various facets of the schools?

18. Is specific reference and record made of the annual audit of the student activities fund, as well as the auditor's recommendations for improvement of financial operation?

19. Are significant items of correspondence made a part of the official minutes?

20. Is provision made to record specific board action with respect to curriculum?

21. Is reference made to all groups appearing before the board?

22. Is formal approval recorded of the school calendar, special functions, duties of employees, and plans for general operation?

It is recommended that the superintendent read with the board these criteria at least once annually as a frame of reference to maintain a high standard of record-keeping via minutes of official actions.

The board may not be able to answer "yes" without any qualification to all 22 criteria. It is recommended that more careful attention be directed to certain factors in the official minutes of the District. The inclusion of appropriate attachments would be of value and also more specific data concerning the annual budget, salary schedules, records of district elections, employment of personnel should be included.

The board minutes were available for the period 1951 to the present, but could not be found prior to that date. They were well kept in two bound books. A carbon copy of minutes should be made and placed in safe keeping.

Community Participation in School District Elections

One evidence of community support of its schools is the record of voting in school district elections for trustees and bond issues. The record of votes cast in school board elections since 1958 is presented:

Year	Votes Cast
1965	79
1964	370
1963	101
1962	108
1961	115
1960	139
1959	279
1958	428

IV. ADMINISTRATION OF THE SCHOOLS

In a school district of sufficient size to have multiple schools, the administration of the district is divided into two levels--the central administration and the unit school administration. The central administrative organization includes all personnel who have responsibility for some phase of administration or supervisory work in more than one school of the district or those who have responsibilities and assignments of district-wide significance.

Figure 1 shows the organizational chart for the Eloy Elementary Schools at the time of the survey. The superintendent served as head of the District and also as unit administrator for Central School. The principal served as unit administrator for Primary School and there was a head teacher at South School. It was indiciated that all classified personnel of the District were reponsible to the superintendent. Later in this chapter modifications are proposed for the administrative organization. The organizational chart is a means of clearly showing the lines of authority of all personnel and helps clarify the pattern of operation. Another very important means of identifying the responsibilities of administrative personnel is the job description. At the time of the survey, there were no written job descriptions. The determination of responsibilities was accomplished by the superintendent.

It is recommended that job descriptions be developed for all district positions. The key to successful school administration rests with organization and efficiency at the District level and with sufficient delegation of clearly defined authority and responsibility at the Unit level. A "rule of thumb" for administrative procedure is to move the decision as near to the activity as possible and as far from the central authority as practicable. This presupposes excellent, two-way communications and mutual respect for administrative competence.

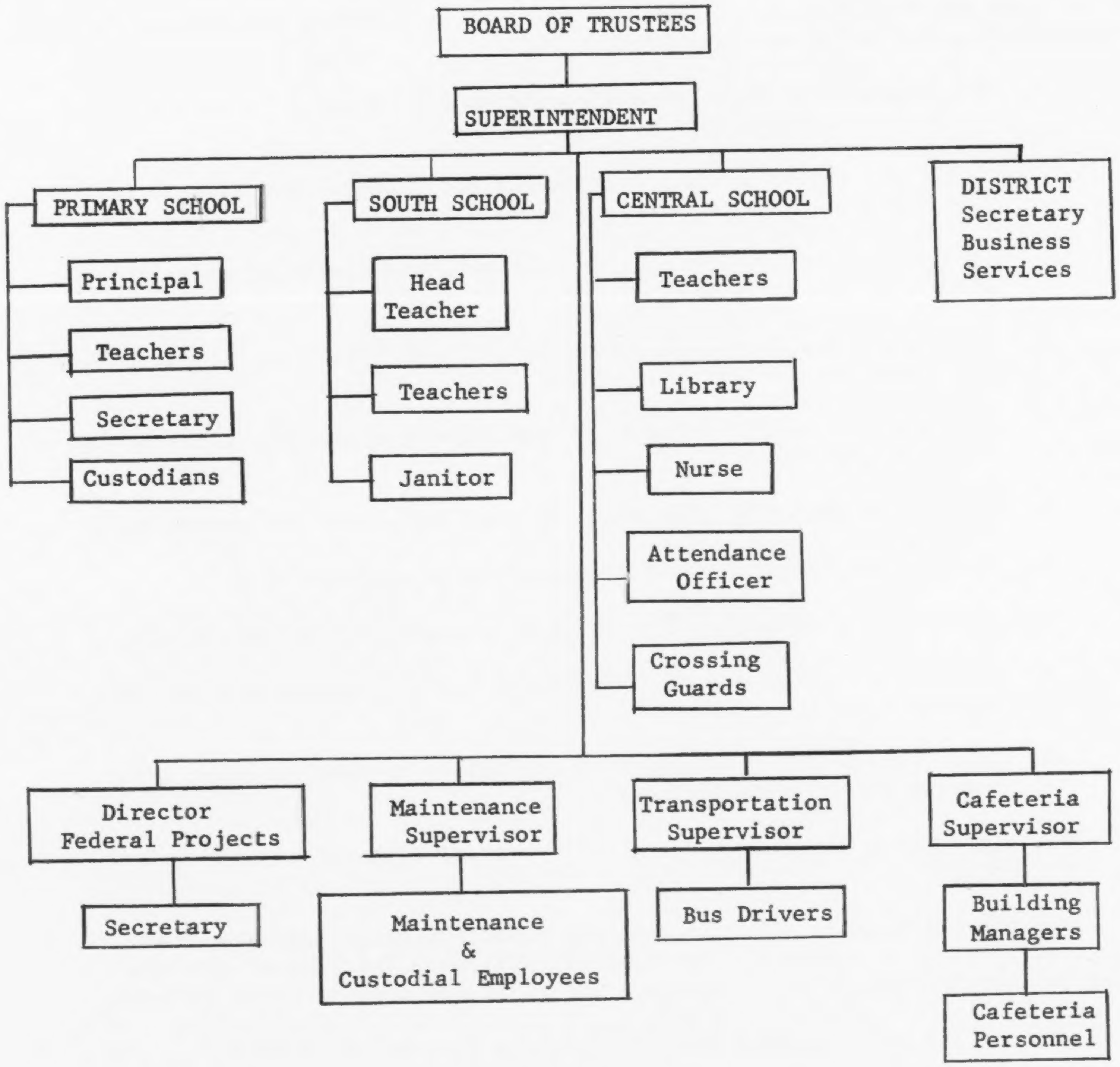

BOARD OF TRUSTEES
SUPERINTENDENT
PRIMARY SCHOOL
Principal
Teachers
Secretary
Custodians
SOUTH SCHOOL
Head Teacher
Teachers
Janitor
CENTRAL SCHOOL
Teachers
Library
Nurse
Attendance Officer
Crossing Guards
DISTRICT Secretary Business Services
Director Federal Projects
Secretary
Maintenance Supervisor
Maintenance & Custodial Employees
Transportation Supervisor
Bus Drivers
Cafeteria Supervisor
Building Managers
Cafeteria Personnel

Figure 2-1

ORGANIZATIONAL CHART FOR

ELOY ELEMENTARY SCHOOL DISTRICT

Some general criteria to consider prior to determining the administrative organization and staffing chart are:

1. Are responsibilities properly assigned and adequate authority delegated to key people?

2. Could the system operate efficiently for a short span of time in the absence of one or more key administrators?

3. Is the structure of the administrative staff basically efficient, with adequate assignment of responsibility?

4. Is there a partnership or "team basis" with mutual confidence between the board and the administration?

5. Are there adequate personnel in supervisory capacities with respect to level and field?

6. Insofar as possible, does each employee have only one supervisor?

7. Are all necessary functions assigned to designated staff?

8. Are lines of authority also used as channels for communication?

9. Is any supervisor assigned responsibility for supervising too many subordinates?

10. Is a responsibility assigned to one person instead of being split between two or more persons?

11. Is there a singular and logical "chain of command" clearly understood?

In the performance of administrative responsibilities one should be constantly alert to means of improving effectiveness. A list of criteria for self-evaluation by administrators and their supervisors would include:

1. Is the administrator sensitive to the feelings of others?

2. Does the administrator exhibit a positive attitude toward those with whom he works?

3. Is there a sense of mutual cooperation between administrators and staff resulting in staff loyalty and rapport?

4. Is the administrator skillful in helping groups develop means of becoming more effective?

5. Does the administrator provide for effective two-way communications with the staff?

6. Does the administrator demonstrate an enthusiastic and optimistic attitude about the school, its staff and its work?

Administrative Guidelines

Several standards or guidelines should provide a frame of reference in developing a good administrative chart. Direct and clear lines of responsibility should be set forth. The number of persons or groups of persons directly responsible to the chief administrator should rarely exceed six, for it is not possible to give adequate supervision beyond this number. Adequate clerical assistance should be provided administrative personnel so that their full attention may be devoted to the important administrative responsibilities of the district. Administrators should be selected to meet the requirements of the position rather than structuring positions to fit the qualifications and wishes of an administrator. There should be sufficient administrative personnel to provide proper leadership and total evaluation of the school program.

Administrative Staffing

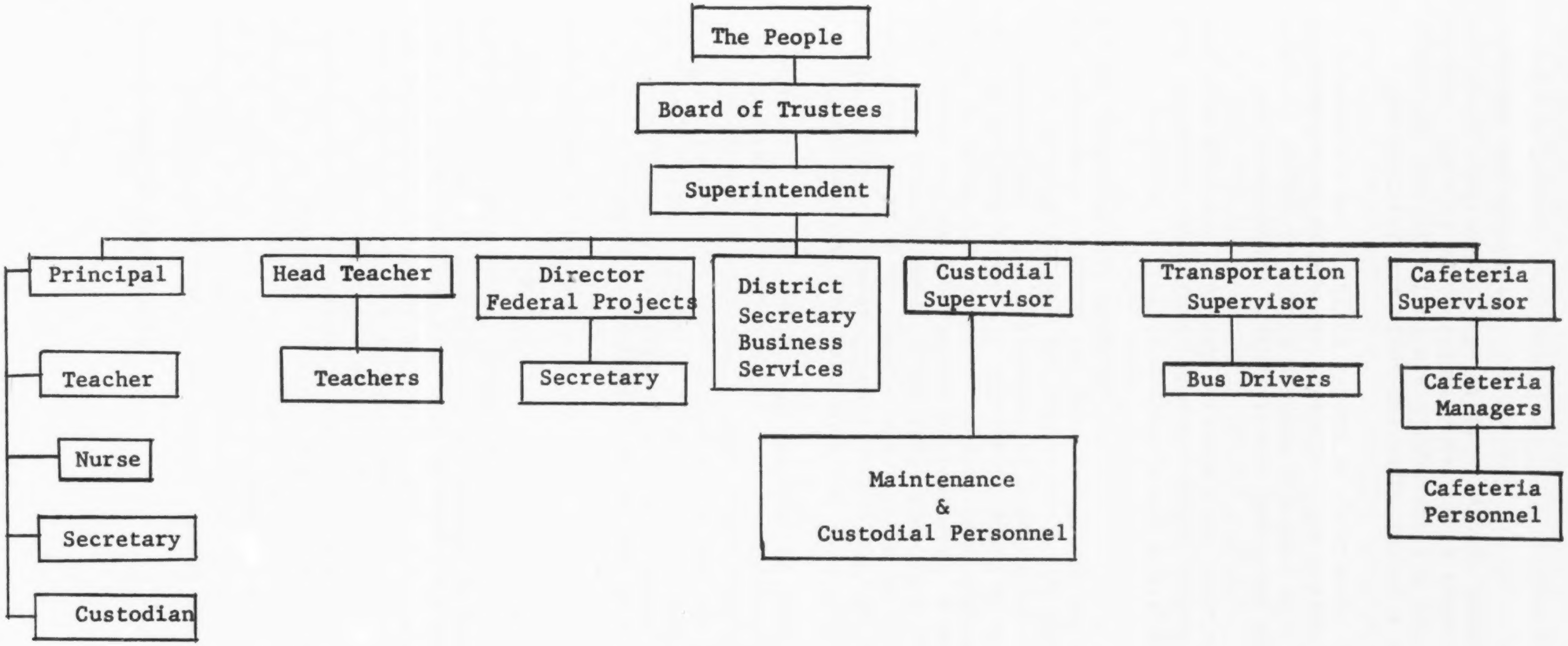
The expansion of programs and the new school require a re-structuring of the administrative staffing for the district. Under the Elementary and Secondary Act of 1965 (P.L. 89-10) Title I, the District has received generous funding for some needed and worthy projects. The magnitude of these programs is such that a full-time director of the federally funded programs should be designated. The planning and direction of these programs is important to the educational program of the District.

The organizational structure for 1966-67 has been set forth previously in the report. Primary School, Central School and the new school will be sufficiently large to require a full-time principal for each. It is possible that the superintendent could also serve as principal of the new school, but this would not be the optimum arrangement. A head teacher should be designated at South School who would also have full-time teaching responsibilities. This head teacher and all principals would be directly responsible to the superintendent. The employment of a secretary at each of the three larger schools will facilitate the operation of the school and make it possible for the principals to spend the greater portion of their time working with teachers in the instructional program.

Classified positions needed at the district level include a maintenance and custodial supervisor, transportation supervisor and cafeteria supervisor and also adequate clerical personnel for district business services.

The recommended organizational chart for Eloy Elementary Schools is shown in Figure 2. It is recommended that this administrative organization be established as soon as possible. The Criteria concerning administrative organization and staffing should be considered in all administrative staffing.

The District has plans for establishing a kindergarten in South School under the financing from the Elementary and Secondary Education Act (P.L. 89-10). This is an excellent idea and is greatly needed in the District. The funds available to the district should provide many needed educational programs and services.


The People
Board of Trustees
Superintendent
Principal
Teacher
Nurse
Secretary
Custodian
Head Teacher
Teachers
Director Federal Projects
Secretary
District Secretary Business Services
Custodial Supervisor
Maintenance & Custodial Personnel
Transportation Supervisor
Bus Drivers
Cafeteria Supervisor
Cafeteria Managers
Cafeteria Personnel

NOTE: Custodians have primary responsibility to maintenance and custodial supervisor, but secondary responsibility to unit principal.

Figure 2 - 2

RECOMMENDED ADMINISTRATIVE ORGANIZATION FOR ELOY ELEMENTARY SCHOOLS

The survey staff carefully studied all aspects of the district's operation, including pupil population data, facilities and staffing. With the new school facilities, the District can now organize more effectively to provide a broader educational program. The survey staff recommends the following organization for 1966-67:

South School - Kindergarten
Primary - Grades 1-5
Central School - Grades 1-5
New School - Grades 6-8

District Plan of Organization

At the time of the survey, the Eloy Elementary Schools offered grades 1-8 in three schools:

South School - Grades 1-2
Primary School - Grades 1-4 (one room of Grade 4)
Central School - Grades 4-8

South School has four classrooms for a total of eight, half-day kindergartens, and also a multi-purpose room. Primary School has 21 classrooms. Central School has many sub-standard rooms which should be discontinued. The recommendations regarding facilities appear in Chapter . The grades can be accommodated in the following arrangement:

GRADE	PRIMARY SCHOOL	CENTRAL SCHOOL	TOTAL
1	4	6	10
2	4	4	8
3	4	3	7
4	4	3	7
5	4	3	7
Total	20	19	39

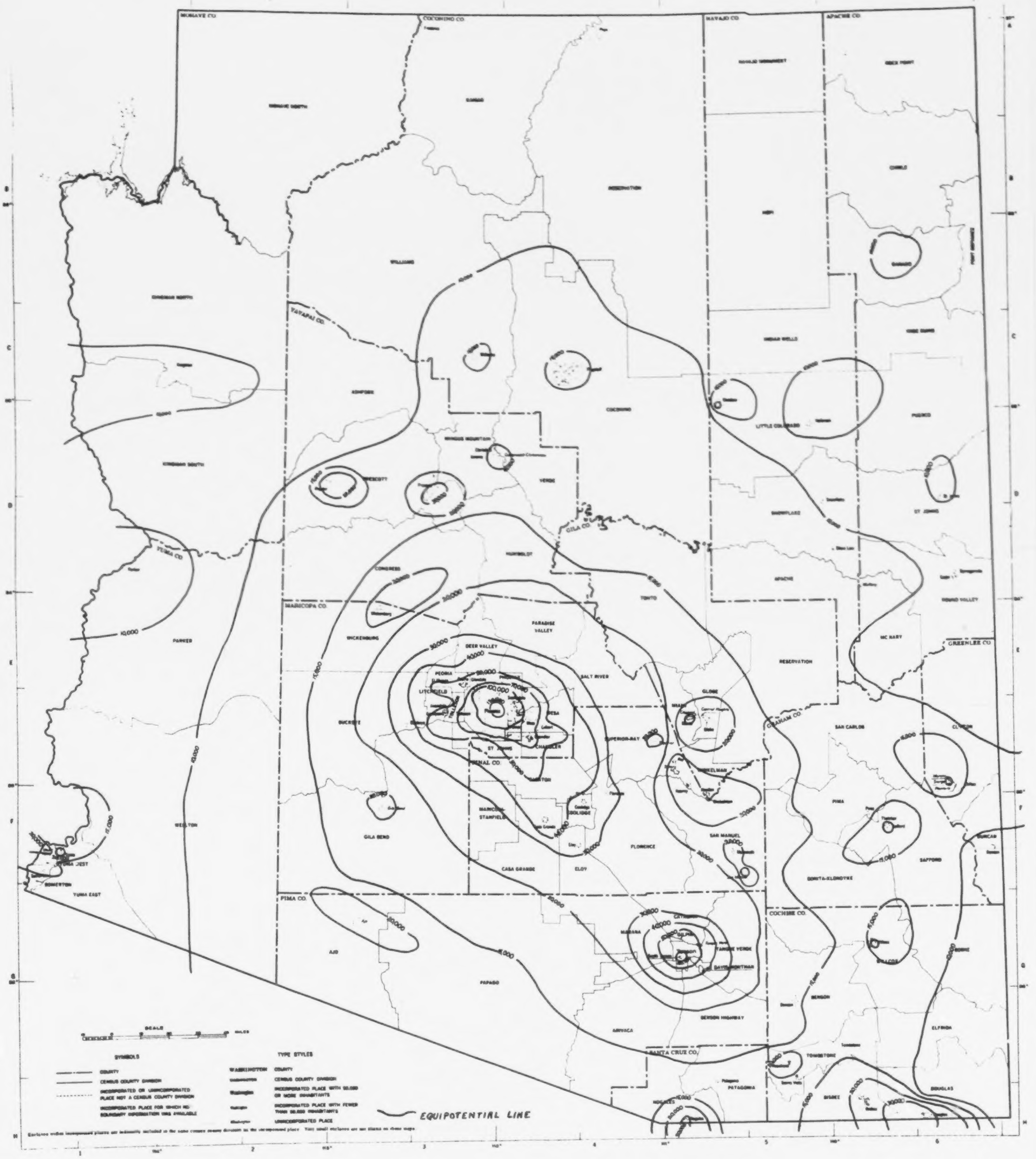
There are 21 rooms at Primary School and the above arrangement would permit use of one room for a library. The new school should include grades 6-7-8 and the MRE class should also be accommodated.

In Chapter IV a comprehensive analysis of the total school curriculum is presented with many recommendations.

Staffing requirements for teachers of special subjects such as art, music and physical education are also presented in Chapter .

V. SUMMARY

In this Chapter the District organization and administration have been analyzed and recommendations presented for 1) The Board 2) the Organization of the District into schools and 3) the administrative organization and staffing. Clearly defined job descriptions setting forth duties and responsibilities and identification of the lines of authority are essential for effective and efficient operation of the school district. The recommendations presented here are for optimum conditions and should be carefully studied by the Board and administration in determining how to provide the best possible educational program for the District.


MOHAVE CO.
COCONINO CO.
NAVAJO CO.
APACHE CO.
YAVAPAI CO.
GILA CO.
YUMA CO.
MARICOPA CO.
PINAL CO.
GRAHAM CO.
GREENLEE CO.
PIMA CO.
COCHISE CO.
SANTA CRUZ CO.
AJO
PAPAGO
YUMA EAST
SOMERTON
PARKER
WELLTON
GILA BEND
BUCKEYE
WICKENBURG
CONGRESS
PEORIA
LITCHFIELD
DEER VALLEY
PARADISE VALLEY
SALT RIVER
MESA
CHANDLER
TEMPE
GLOBE
SUPERIOR-RAY
FLORENCE
ELOY
CASA GRANDE
SAN MANUEL
MARANA
TUCSON
ARIVACA
BENSON
TOMBSTONE
BISBEE
DOUGLAS
ELFRIDA
SAFFORD
DUNCAN
CLIFTON
SAN CARLOS
RESERVATION
TONTO
HUMBOLDT
PRESCOTT
VERDE
COCONINO
ASHFORK
WILLIAMS
KINGMAN SOUTH
KINGMAN NORTH
HOPI
INDIAN WELLS
LITTLE COLORADO
SNOWFLAKE
ST JOHNS
ROUND VALLEY
PUERCO
CHINLE
GANADO
ROCK POINT
NAVAJO MONUMENT
SCALE
MILES
SYMBOLS
COUNTY
CENSUS COUNTY DIVISION
INCORPORATED OR UNINCORPORATED PLACE NOT A CENSUS COUNTY DIVISION
INCORPORATED PLACE FOR WHICH NO BOUNDARY INFORMATION WAS AVAILABLE
TYPE STYLES
WASHINGTON COUNTY
CENSUS COUNTY DIVISION
INCORPORATED PLACE WITH 50,000 OR MORE INHABITANTS
INCORPORATED PLACE WITH FEWER THAN 50,000 INHABITANTS
UNINCORPORATED PLACE
EQUIPOTENTIAL LINE
10,000
15,000
20,000
30,000
40,000
50,000
100,000

MAP 3-1

ARIZONA POPULATION POTENTIAL MAP BASED ON

CENSUS COUNTY DIVISION CONTROL AREAS

CHAPTER III

PUPIL PERSONNEL DATA

INTRODUCTION

This chapter is directed at an investigation of membership projections, mobility indices, age distributions, retentions, achievement, and intelligence of Eloy Elementary School District's pupils.

I. STUDENT MEMBERSHIP PROJECTIONS

Referents

A number of pertinent referents were analyzed, and the following findings were synthesized:

1. Eloy's population will increase four per cent by 1970. Table I presents data for Eloy and Pinal County.
2. Pinal County's average daily attendance of school children has been increasing .68 per cent yearly since 1960.
3. Utility revenues have been decreasing 5.8 per cent yearly over the last four years.
4. Pinal County's assessed valuation has been increasing since 1962 at a 1.9 per cent yearly increase.
5. Rental income rates have fluctuated noticeably since 1960. Some years had increases of as much as 17 per cent over previous years; however, other years showed 3 per cent losses.
6. Arizona State University's Industrial Engineering Department suggested that Eloy has an eventual population potential of 30,000 to 40,000 residents. The equi-potential lines on Map 1 reinforce this statement.

TABLE I

NUMBER OF RESIDENTS AND PERCENTAGE INCREASES BY AREA: 1950-70

Area	Residents 1950	Percentage Increase	Residents 1960	Percentage Increase
Eloy	3,580	27	4,899	9
Pinal County	43,191	31	62,673	9

	Residents 1965	Percentage Increase	Residents 1970
Eloy	5,377	4	5,616
Pinal County	69,000	4	72,164

Yearly Projections by Grade

The estimates in Table II were calculated by the use of retention ratios and least square equations. Ratios were used for the second through the eighth grades. Equations were used for the total estimates and grade one.

A realistic view of the estimates and associated referents suggested a gradual increase in student membership over the next five years.

Mobility Indices

Student mobility has been decreasing since 1960 in Eloy Elementary School District. A study of Table III's data revealed a pattern of gradual decline.

For comparison purposes, a mobility index was done for Phoenix. A mean of .20 was found. A minus one standard deviation was calculated to be .08. In view of these findings, it was concluded that Eloy Elementary School District had low mobility. Only sixteen per cent of the schools in Phoenix had mobility indices lower than Eloy's index.

TABLE II

MEMBERSHIP AT COMPLETION OF EACH YEAR BY GRADES

School Year	Grade								Total
	1	2	3	4	5	6	7	8	
1960-61	233	230	205	188	166	162	124	147	1,455
1961-62	263	181	210	188	178	157	143	118	1,438
1962-63	287	191	160	215	180	163	146	142	1,482
1963-64	254	214	163	175	196	178	175	145	1,500
1964-65	250	205	197	153	191	169	173	161	1,499
Retention Ratios		.763	.933	.991	.985	.926	.882	.793	
1965-66	265*	191	191	195	151	177	149	137	1,521**
1966-67	267*	201	178	189	192	140	156	118	1,536**
1967-68	270*	204	188	177	186	178	124	124	1,551**
1968-69	272*	206	191	187	174	173	157	98	1,566**
1969-70	275*	208	192	190	184	161	153	124	1,582**
1970-71	277*	210	194	191	187	171	142	121	1,598**

* Y = 257.4 + 2.5X

** Y = 1474.4 + 15.4X

TABLE III

MOBILITY INDICES OF ELOY ELEMENTARY SCHOOL DISTRICT'S PUPILS BY YEARS: 1960 - 65

Years	Mobility Index*
1960-61	.10
1961-62	.09
1962-63	.08
1963-64	.07
1964-65	.07

$$\frac{\text{*Gains (G) + Losses (L)}}{\text{Original Enrollment (E)}} = \text{Mobility Index (IM)}$$

II. PUPIL AGE AND RETENTION DATA

Age Distributions

An inspection of the figures in Table IV signified the fact that Eloy's Elementary School District had an unusual number of students who were considered to be over-age. Fifty per cent of the pupils were over-age.

Such a high percentage deviates noticeably from the typical school system in Arizona.

Retention Distributions

An evaluation of the information in Table V denoted a District retention rate of nine per cent yearly. In the past as few as eight and as many as eleven pupils out of every one hundred were retained.

TABLE IV

AGE DISTRIBUTION BY GRADE, ELEMENTARY SCHOOLS*

		Grade								
Age		1	2	3	4	5	6	7	8	TOTAL
5										
6		185								185
7		84	115							199
8		14	92	106	1					213
9		3	24	81	83	8				199
10			4	21	57	89	13			184
11			3	7	21	66	72	6		175
12				1	10	32	47	96		186
13						12	44	56	76	188
14					1	3	10	24	67	105
15							5	10	35	50
16								1	10	11
17										
Over 17										
TOTAL		286	238	216	173	210	191	193	188	1,695
Normal	Number	185	115	106	84	97	85	102	76	850
	Per cent	65	48	49	49	46	45	53	40	50
Over-Age	Number	101	123	110	89	113	106	91	112	845
	Per cent	35	52	51	51	54	55	47	60	50

* The students between the two lines are over-age.

A study of various schools across the state was done, and the findings indicated that Eloy's retention rates were quite high over the past five years.

A manipulation of the figures in Table V showed that sixty-one per cent of the total retentions occurred at the first grade level, eighteen per cent occurred at the second grade level.

TABLE V

DISTRIBUTION OF RETENTION BY GRADES AND YEARS

Grade	1960-61	1961-62	1962-63	1963-64	1964-65	Total
1	78	86	70	66	84	384
2	21	12	23	34	22	112
3	13	4	3	12	3	35
4	4	5	8	12	3	32
5	6	7	2	6	5	26
6	1	1	0	4	4	10
7	2	5	1	8	7	23
8	2	4	0	1	0	7
Total	127	124	107	143	128	629
Total Promoted	1,328	1,314	1,375	1,357	1,371	6,745
Per cent Retained	9.6	9.4	7.8	11.0	9.3	9.3

III. PUPIL TEST DATA

Achievement Test Information

The pupils of Eloy Elementary School District were examined during the third school month of 1965. California Achievement Tests were used, and the District has since received the computerized results from the California Test Bureau.

The computerized findings were delimited into every conceivable category for remedial purposes such as subject subdivisions, grades, sections, and rooms. The survey staff considered the test service to be excellent and extremely beneficial for remedial purposes.

An investigation of the dimensions in Table VI denoted the following points:

1. There was an overall five month differential between actual and expected grade level achievement in English. The test norms indicated that the District's pupils as a group were below grade level; however, it must be pointed out that many of the pupils achieved above grade level.

2. There was no overall grade level differential between the District's students and the test norms in arithmetic.

3. The standard deviations were quite large, signifying large intragrade variances in achievement relative to both arithmetic and English.

Intelligence Test Information

The California Test of Mental Maturity was given to Eloy's students in 1965. The computerized results enumerated means and standard deviations by grade and category. The categories were language and non-language delimitations. Table VII presents the measures by grade and category.

The California Test of Mental Maturity uses a mean of one hundred and a standard deviation of sixteen. Eloy's pupils were found to have an overall mean of 89.37 and a standard deviation of 17.92. These figures were somewhat lower than the test norms.

TABLE VI

ACHIEVEMENT TEST DATA BY GRADES FOR ELOY ELEMENTARY SCHOOL DISTRICT: 1965

	Grade										
	2	3	4	5		6		7		8	
	Mean	Mean	Mean	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Vocabulary	2.2	2.0	4.3	4.85	1.10	5.34	1.28	6.96	1.78	7.80	1.85
Reading Comprehension				4.78	1.22	5.36	1.36	7.10	1.63	8.00	1.75
Arithmetic Reasoning	2.2	3.5	4.4	5.17	.90	5.26	1.16	6.68	.97	7.69	1.28
Arithmetic Fundamentals				5.28	.74	5.91	.91	7.53	1.15	8.82	1.56

TABLE VII

INTELLIGENCE TEST DATA BY GRADES FOR PUPILS OF THE ELOY ELEMENTARY SCHOOL DISTRICT: 1965

	Grade									
	4		5		6		7		8	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Language	89.22	15.07	88.58	18.31	88.78	17.83	92.41	17.59	91.85	16.53
Quantitative	86.61	16.68	89.69	19.42	89.28	18.62	93.87	18.96	94.05	18.74
Total	86.65	16.62	87.98	18.69	88.30	18.19	91.88	18.29	92.04	17.82

IV. SUMMARY

Chapter III was summarized by the following statements:

1. There will be a gradual increase in student membership over the next five years.
2. Student mobility has been decreasing since 1960 in Eloy Elementary School District. The District's indices were much lower than those calculated for the Phoenix schools.
3. Fifty per cent of the District's pupils were over-age. This finding seemed unusually high when compared with other districts across the state.
4. The District had a retention rate of nine per cent yearly. Again, this was considered to be comparatively high.
5. The District's pupils as a group were below grade level in English. The differential was found to be five months.
6. The District's pupils as a whole were at grade level in arithmetic.
7. The pupils of Eloy Elementary School District did not reach the intelligence norm levels set by the California Test Bureau; however, these findings do not necessarily indicate the District's children are below average in intelligence. The test's norms may have included a number of biases such as criterion deficiencies, contamination, and distortion.

CHAPTER IV

THE EDUCATIONAL PROGRAM

INTRODUCTION

How the survey staff worked. It is important to remember that the survey staff was not primarily interested in an individual teacher, or in the curriculum of a particular school, but rather attempted to identify a pattern for the Eloy School District as a whole. This pattern was evolved inductively by checking into all details of the instructional program. Extensive coverage rather than intensive coverage was therefore necessary. There were many consultant visitations of short duration each, rather than extensive visits in which more could have been seen in a smaller number of selected situations. All schools were visited by all the consultants; most classes were visited at least once while a number were visited several times.

During the visitations teacher-pupil attitudes and relationships were carefully noted, physical environment was observed, bulletin boards and displayed papers were studied for evidence of procedures, classroom projects were studied, and numerous conferences were held with teachers and administrators. Publications of the school district were obtained and analyzed, as were statistics obtained from the Eloy School District Administration. During these various activities the survey staff engaged in a constant effort to see the District's educational pattern emerge from the many details obtained. In other words the survey staff was engaged in an attempt to see both "the forest and the trees". It is believed by the directors of the survey staff that the survey team members were successful.

Members of the survey staff constantly guarded against generalizing from one or two observed situations. Instead, members of the survey staff were admonished to permit their collected information to become cumulative in order that the final written report would be representative of the true picture of the entire district, instead of being conditioned by the results of limited visitations.

The survey staff feels that as a result of many dozens of contacts with the Eloy School District curriculum that it has adequate bases upon which to draw certain conclusions and make appropriate recommendations. In the following pages the subject areas of Social Studies, Reading, Science, Arithmetic, Language Arts, Music and Art, Practical Arts and Physical Education will be considered. Each subject area will be preceded by a statement concerning a point of view; that is, by a statement containing criteria considered by the survey staff to be representative of optimum or desirable conditions which ought to prevail in connection with each of the subject areas if children are to obtain optimum learning opportunities.

Following these individual statements (or points of view) in connection with each subject area, the reader will find statements titled Observations and Commendations. In these sections of each subject area report, survey staff consultants have identified certain conditions which they had observed during the visitation, while pointing out specific conditions which were particularly strong or commendable.

At the conclusion of each section dealing with a subject area, the reader will find statements containing conclusions and recommendations. It is from among the conclusions and recommendations that the survey staff hopes that the members of the Board of Trustees and the Eloy School District staff will make priority selections for implementing progressive change and improvement in the school district's curriculum in the future.

LANGUAGE ARTS

Grades One, Two and Three

Point of View

To be able to communicate with others is a basic need of all citizens in a democracy. To help children learn to communicate effectively is a major responsibility of the elementary school. To lay the foundations of attitudes, habits, skills and understandings for communication is the initial responsibility in the curriculum of the early years known as the primary grades.

Communication is a many faceted accomplishment. Effective communication might be compared to a finely polished gem. All the facets must be polished to perfection. Any face of the gem left unpolished reduces the brilliance. In the same manner, any phase of the language arts which is neglected reduces the effectiveness with which the learner uses his communicative skills. A complete program calls for many different abilities developed concurrently, and for balance from one to the other. Let us examine some of the phases of the program as a basis for establishing a point of view for curriculum content in the early years.

Listening is learned from birth. By the time the child comes to school he has already learned to "tune out" the sounds in his environment which lack meaning or value to him. He has learned to attend to those sounds which are satisfying or useful. The school must build on this background and teach the child when to listen, what to listen to, and how to listen for different purposes. He needs to listen to directions, listen for understanding, listen for impressions, listen for beauty of sound or rhythm, listen for information about his expanding environment. He needs to listen to other children as well as to adults. He needs to listen individually as well as in a group. These are acquired skills and can be taught.

Speaking is an accomplishment which most children have acquired long before they come to school. The child who learns to use this skill for effective communication is the one who has the opportunity to use it in real situations. The school which puts the premium on "not talking" or on "being quiet" is discouraging one of the most valuable skills the child will ever acquire in his whole life. There is a time and a place for appropriate oral expression in the classroom.

Reading is a symbolic process created by civilized man. It has become an essential tool in our culture. It has become a measure of education and success. It has become a means to almost all other avenues of learning. It has become a status symbol. In our anxiety to perfect the skill with children we have made it a source of frustration and defeatism. The child who does not experience early success in mastering the reading skills is often made to feel unfit, unable, unwanted, and unacceptable both as a pupil and as a person.

Reading involves a two-pronged attack. Some would begin with mechanics and seek to give them meaning. Some would begin with meanings and seek to give them form. The former is based on an understanding of the structure of the language. The latter is based on an understanding of the development patterns of children. Either one, if over-emphasized, tends to lead to imbalance. If the approach is through the mechanical structure of the language, there is danger of developing learners who perform like robots and lack the ability to think, interpret, evaluate and apply. If the approach is completely unstructured, there is danger that the child will grow up to have an abundance of ideas but will be confused through lack of organization of skills. In the one case he may pronounce the words but miss the meaning. In the other case he may get some ideas but lack the ability to use his skills to ferret out ideas independently. The truly effective program demands a balance between the two approaches.

Writing is another man-devised process using symbols of language to express ideas. Written language pre-supposes the transcendence of time or space. If the person with whom one wishes to communicate is here now, the logical means of communication is the spoken word. The advent of the telephone and the tape recorder has reduced the emphasis on written communication in adult life in the business and social world. Nevertheless, the schools are not yet ready to discard the teaching of the written word as a valuable skill. To communicate effectively in writing, one must learn the muscular skills involved in penmanship or typing, and the mental skills involved in spelling and the syntax of the sentence in the native language. When the "mother tongue" is the same one as that which is used at school, the problem is reduced somewhat. When the two are different, the problem has been compounded.

These are the problems of teaching the language arts in schools such as those found in the Eloy School District.

Observations and Commendations

Perhaps the sensitivity of teachers to children and their needs for learning was the most obvious and commendable quality in the primary schools at Eloy. Nearly every teacher expressed concern for the children and their personal and emotional needs in school. There was a warmth and wholesomeness in their relations. One teacher made a newcomer feel welcome to the new school and the new room. Another expressed delight and approval over new glasses which were much needed. Another encouraged a child to try a new learning experience with an offer of help if needed.

Teachers gave every evidence of being aware of the stages of maturity in which they found the children and expressed willingness and desire to meet each child on his level. There was ample evidence of variation in level of instruction to meet individual differences in rate and quantity of learning. Many of the characteristics of the much-discussed "ungraded primary school" so frequently mentioned in current professional literature were evident in the classrooms. Children were being allowed to progress at their own rates, were being given reading material on their own levels of development, and were being regrouped as needs indicated. It was evident that these teachers knew how to meet the children on the level where they found them. Any frustrations which they may have felt grew out of their having to work within an administrative framework which called for identifying children by grade level, requiring them to pass hurdles at stated intervals such as promotion time, and trying to evaluate them on a comparison basis which assumes that they all "ought to be doing" a given level of work.

The physical setting in which the teachers and children in the primary grades were working was commendable. The clean light airy classrooms were cheerful and conducive to learning. There was space accompanied by access to the out-of-doors and accessible restrooms. The open construction of the building took advantage of the mild winters and the warm sunny climate. Chalkboard space and bulletin boards were provided. One large cupboard in each classroom provided a minimum of storage space. A table provided for work or display area. Some teachers were making use of window sills for additional display. The rooms and the children were both neat and orderly.

The instructional materials in the classrooms reflected an emphasis on the mastery of skills. There were drill books for the establishment of phonetic principles and vocabulary learnings. There were duplicopy sheets for practice and application. There were books in small sets to meet the needs of different levels of achievement. Charts and flash cards were provided for drill.

The instructional techniques reflected the same philosophy as the setting and the materials. Routine drill was evident. Children were observed copying written material from the chalkboard on uniform papers. A brief check of representative children about the room (in one case) failed to disclose a child who could read what he was writing. No doubt some could. Oral reading in many cases consisted of taking turns at sight reading with prompting to supply unknown words. Occasionally some one would stop to "sound out" a word and continue without picking up the thread of thought. There were a few instances of motivation for meaning in the reading process.

The distribution of time on the daily classroom schedule indicated a major emphasis on mastery of word recognition techinques in reading. Table I shows the time distribution and subject matter emphasis on the printed programs in grade one. This does not include recesses and lunch period. *Other areas listed on classroom schedules included Opening Activity, Health Inspection, Arithmetic, Music, Physical Education, Art, Science, Free time assignments, Review, Miscellaneous, Lunch report, Discussion, Choral Speaking, Special help, Social Studies, New Math, and Room Adjustment. Note: Not all areas appeared on all programs. Some appeared on only one or two.

The average time reported as being devoted to Language Arts in grade one was 121 minutes per day. This varied from as little as 80 minutes in one room to as much as 165 minutes in another room. This represented, on the average, approximately 54% of the time in the school day. Whether time was actually being spent in this manner is open to question, but this was what showed on the duplicated programs presented in the Consultant's Handbook provided by the school office.

A similar study for grade two showed an average of 145 minutes daily devoted to the Language Arts. This represented approximately 64% of the total school day. The number of minutes per classroom varied from 120 to 175. The distribution according to identified activities is shown in Table II.

TABLE I

TIME SCHEDULED FOR LANGUAGE ARTS IN GRADE ONE

Room	Minutes Devoted to Subject Areas Daily									
	Reading	Reading & Phonics	Phonics	Spelling & Phonics	Listening & Story tell.	Writing	Writing & Spelling	Total time for Lang. Arts	All other areas *	Grand Total
A		90			30	15		135	90	225
B		100				15		115	110	225
C	65		20					85	140	225
D	65		70		10	20		165	60	225
E			55		15	10		80	145	225
F	45		30		30	20		125	100	225
G	35		60				20	115	110	225
H		55		40	20		35	150	75	225
I		45	40		20		15	120	105	225
J	65				40	20		125	100	225

TABLE II

TIME SCHEDULED FOR LANGUAGE ARTS IN GRADE TWO

Room	Minutes Devoted to Subject Areas Daily											
	Reading	Reading & Phonics	Phonics	Spelling	Writing	Spelling & Writing	English, Lang. or Lang. Arts	Oral Lang. or Talking time	Story Time	Total for Lang. Arts	All other Areas *	Grand Total
K		105		15					15	135	90	225
L		110		10	20		15			155	70	225
M		105		20	10		20			155	70	225
N		95				10	15			120	105	225
O	30	45	30				15			120	105	225
P	65		30	15			15			125	100	225
Q	65		10	20	30		30			155	70	225
R	50	55		20			40	10		175	50	225

* Other areas listed on classroom schedules included Opening, Assignments, Physical Education, Arithmetic, Science, Health, Music, Art, News, Numbers, Instructions, Seatwork, and Sharing.

The analysis of time distribution as indicated by third grade classroom schedules is shown in Table III.

TABLE III

TIME SCHEDULED FOR LANGUAGE ARTS IN GRADE THREE

Room	Minutes Devoted to Subject Areas Daily										
	Reading	Phonics	Phonics & Spelling	Spelling & Writing	Spelling	Writing or Penmanship	English Lang. or Lang. Arts	Story time or Listening	Total for Lang. Arts	Other areas *	Grand Total
S	75	60			30	15	30		210	90	300
T	60	15			15	15	30	30	165	135	300
U	60		15			15	60	15	165	135	300
V	60	15			15	45	30	30	195	105	300
W	60	15		30				30	135	165	300
X	75			15					90	210	300
Y	45			15		15	30		105	195	300

* Other areas listed on classroom schedules included Opening, Music, Science, Arithmetic, Physical Education, Health, Safety, Art, Evaluation, Social Studies, Discussion, and Work Period.

The average time allotment for the Language Arts was 152 minutes which constituted 51% of the total time for the grade. The range was from a low of 90 minutes in one room to a high of 210 minutes in another room.

The chart in the Consultant's Handbook giving a minimum time allotment by subjects indicates a minimum of 750 minutes per week for the Language Arts. This amounts to 150 minutes daily which is 66% of the time in grades 1 and 2 and 50% of the time in grade 3. Greene and Petty recommend 50% of the time in grade one, 46% in grade two, and 40% in grade three.[1]

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[1] Harry A. Greene and Walter T. Petty, Developing Language Skills in the Elementary School, (Boston: Allyn and Bacon, 1963), p.38.

Conclusions and Recommendations

From the above observations it seems reasonable to conclude that the program in the language arts in the primary grades in the Eloy School District was one based on the mastery of skills. It was heavily influenced by a belief in the value of phonics and word drill as a foundation for learning to read. Both the materials and the teaching techniques bore out this observation. There was little evidence of reading for meaning either in stories or in content areas. There was a limited amount of evidence through classroom observation or through displays of children's work of either expression or creativity in either oral or written work.

While teachers seemed keenly aware of the children's needs in the skills areas, and of the importance of adapting instruction to individual differences, they often expressed concern about the accomplishments. They seemed to be doing what they believed was important, or what they were convinced was expected of them. The recommendations which are offered below are based on the expressed need for recognition of maturity levels of children, the improvement of the physical setting and materials, and a changed emphasis in procedures.

1. Need for pupil maturity. There was a definite feeling that pupils need maturity in keeping with the level of assignment and the curriculum prescribed. Some of the children who were not making satisfactory progress in the basic program lacked maturity; some lacked experience; and some lacked ability. At the present time the children may enter first grade if they will be six years old on or before December 31 of the school year. This means that at least a third of the beginners are attempting a formal reading program before they reach their sixth birthday. Teachers indicated that many of these children are immature because they lack sufficient enriching experiences. Some of them are immature because they have limited mental ability. Research evidence indicates that success in beginning reading is doubtful under these circumstances. That being the case, there are many frustrations on the part of both teachers and pupils in attempting a program that may promote defeat from the outset. While some of the teachers are aware of this situation and are making many attempts to provide the readiness program needed, they still feel an urgency to cover the prescribed material and get as many of them "through" the program as possible. As a consequence, many immature children are being urged to apply themselves to tasks that are beyond their level of maturity. If they do not succeed, they are faced with failure and repetition. If they do succeed in the memorization of abstractions, they may be experiencing pressures which might result in a distaste for a task before they are mature enough to meet it with enthusiasm and understanding.

The best single recommendation which can be made to meet this need is the establishment of a program for five-year-olds. This could be interpreted as a kindergarten program in the Eloy School District. These children need a carefully planned experience and enrichment program beginning after they have passed their fifth birthday and providing one full year for development. They need to develop concepts about things, language skills through conversations and activities, muscular coordination through appropriate activity, and social understandings through group situations. All this should help them gain self confidence and assurance as individuals and in groups.

With this background of experience and maturity they would have many advantages when they enter the more formal first grade program. The first advantage would be the obvious one of a bit more age and maturity on the average. The second would be the experiences which help them to converse, respond to directions, participate in group activities, and assume responsibilities. The result should, and no doubt would, be increased assurance of success in the beginning reading program. Reducing the number of failures in the first grade would have certain economic advantages to the community not to mention the psychological effect on the children themselves. A longer range effect would be a reduction in the need for remedial teaching at higher levels. It would be hard to pinpoint, but it should also have an effect on the drop-out rate. The drop-outs are the ones who have experienced defeat and failure in learning and see school as a place which has nothing to offer to them, at least nothing pleasant or satisfying. If they could see themselves succeeding at a task they were mature enough to attempt, they would view school in a different light, and perhaps stay with it to complete their education.

2. Physical facilities. A second recommendation is concerned with the environment. The building itself is spacious, light and pleasant. There is need for additional shelf space and work area. The addition of shelves along the wall under the windows would add materially to the adaptation of the room to children's activities. This would provide space for storing projects related to social studies and language expression. It would provide shelving for supplementary books and library books for free reading. It would provide work space for construction work, painting, modeling, displaying, and other activities. Another useful addition to the classrooms would be the installation of plumbing which would give water for activities such as painting, washing, experimenting, and measuring.

Another adjustment to the physical setting which takes no additional funds is the movement of the furniture. Arranging rooms in such a fashion that children are grouped for activities, facing one another for discussion, and creating open spaces for floor models, larger projects, or active games and rhythms would be advantageous.

The chalkboards seemed adequate. The bulletin boards were large. They need to be used for display of children's work or for development of projects related to the center of interest. A bulletin board which reflects a developing activity rather than a finished product or a teacher-made display is more educational than one which might be more decorative. Table space was limited to one table per room. In some rooms the table was being used for a reading table thus eliminating it as a place to display three-dimensional projects, books or other materials. The additional shelf space might meet this need, or extra tables would be helpful.

Easels were available in some of the rooms. The extent of their use was not evident. Putting them to use would expand the opportunities for children to engage in creative expression. They can be used with pencil, chalk, crayon, water color paint, or even paper cutting.

3. Materials. The educational opportunities for children are enhanced when they are exposed to stimulating materials. Books are a major necessity. Children need access to room collections of library books as well as to a

central library. Adding a library to the school with a librarian on the staff would be highly desirable. Until that can be done, increasing the library budget to provide room libraries would greatly expand the reading experiences of the children.

Creative expression comes not from duplicated forms to fill in or color but from experiences and ideas. Give a child with a busy mind a blank sheet of paper and he will produce more than when his thinking is blocked by the boundaries of a form to be filled in. Pictures labeled with identifying names such as farm, horse, tractor, wagon, plow, truck, and many more will tie in with a center of interest, will enrich vocabulary with meanings, and will give the child a source of self-help when he wants to write, or draw, or label. Thus he becomes original and creative in his independent work periods. This kind of expression calls for more blank paper and less duplicopy material. It calls for various media such as paint, chalk, crayons, clay, pencils, scissors, cloth, string, and others. The child who follows directions then has his work checked as "right" or "wrong" is learning to imitate and to follow. The child who creates then tells about his work, is learning to think and to do. He becomes independent. He becomes self-propelled. He learns to plan his own next steps and to use his time profitably.

4. Teaching procedures. A final recommendation calls for a change in emphasis in the teaching process itself. Consider the following two typical lesson dialogues:

Sample A

Teacher: What page is our lesson on today?

Child: Twenty-nine.

Teacher: What is the name of the story?

Child: A Toy for Susan.

Teacher: How many of you have studied your lesson?

Children: (Hands)

Teacher: Do you know all of your words?

Children: Yes.

Teacher: Let's hear you say the new words, Mary.

Child: (Repeats word list).

Teacher: All right, you may read first, Tommy.

Tommy: (Reads orally until he comes to a word he does not know).

Teacher: Help him, Alice.

Alice: Want.

Teacher: Yes, go on, Tommy.

And so the lesson continues, each reading in turn, being told the words he does not know, and listening to the others.

Sample B

Teacher: What is your favorite toy?

Child: My doll.

Child: My red wagon.

Child: My teddy bear. It can talk if you squeeze it.

Teacher: We have a story about Susan who is getting a new toy. Let's see if we can find out what it is. Sometimes the pictures tell us, but this time they don't. Turn to page twenty-nine. Who is talking?

Child: I think it is Susan

Child: I don't, I think it is Mother.

Teacher: How can you tell?

Child: She looks like it in the picture.

Child: The story says, "Mother asked".

Teacher: Then if Mother asked a question, read to find out what she asked.

Children: (Reading silently)

Teacher: What did she ask?

Child: Where is your penny?

Teacher: To whom do you think she was talking?

Child: To Susan

Teacher: Read to find out what Susan answered.

Child: In my pocket

Teacher: Something dreadful happened to Susan. Read to find out what it was.

Children: (Reading silently)

Teacher: What happened?

Child: She lost her penny.

Teacher: How do you know?

Child: It says there was a hole in her pocket.

And thus the story continues finding out, sharing information, and reading orally to give expression to learnings.

See the difference in these two lessons? In the first one the purpose was to check on word mastery and skills. In the second the purpose was to find out what happened in the story. In the first the oral reading was the approach and the teaching was in the form of correcting the mistakes or prompting when there was a lack of mastery. In the second the teaching came first. The emphasis was on the story content. The vocabulary was taught meaningfully. Lack of word mastery showed up in the discussion. The oral reading was the culmination. It gave the child an opportunity to make correct associations between sound and symbol, and to put to successful use what he had just learned.

By way of summary then:

- If children could be more mature when they attack beginning reading,
- If they could have enriching experiences before meeting a formal program,
- If they could have more materials and a freer environment,
- If they could be challenged to think and create,
- If they could have more emphasis on meanings,

Then they would come through with

- different attitudes,
- different patterns of success,
- and different adjustments to school and to learning.

These factors would put new emphases on the language arts as a means of communication. The children would learn to succeed and to view themselves as capable, wanted, and accepted. Such a changed outlook would make a difference not only now but in the future.

SOCIAL STUDIES

Grades One, Two and Three

Point of View

Teaching Social Studies in the Primary Grades is more nearly a point of view than a matter of time, or textbook, or material, or curriculum outline. In the January 1966 issue of Arizona Teacher Don Morris describes the Social Studies program at Blue, Arizona, as follows:

> "Social studies for these children is in many ways a natural outgrowth of their beautiful setting amidst the pine and juniper covered hills of the Blue Range primitive area. Studying community helpers means studying about people like the game warden, the forest service man, the road grader man, the deputy sheriff, and the friendly post master. Such people are real and warm, as real and warm as the old wood stove in the post office".[1]

This paragraph sets a mood for social studies in the primary grades. It implies that social studies means real people, human contacts, real experiences, meanings, understandings, relationships, and attitudes. "Good" social studies in one community might not necessarily be "good" in another community. The purposes for social studies experiences with young children are to help them become better members of the society of which they are a part, and to help them develop positive attitudes toward self and the prospects for the future. They need to develop respect for their own culture and faith in their own ability to make for themselves a profitable and constructive place in life.

Teaching social studies need not be a matter of finding time. It is, instead, a matter of making different use of the time already available. The study of the social environment in a community like Eloy might be centered around such topics as workers in the community, moving to a new home, cleaning up and beautifying the neighborhood, helping other members of the family, getting acquainted with different types of homes, identifying ethnic or cultural backgrounds, preserving family traditions, adapting to life in a desert region, "What I will do when I grow up" and many others far more familiar to the dedicated teachers in the community than to the writer who visited the school only briefly.

A classroom with an obvious center of interest which carries forward from day to day over a period of time, extending to a week or perhaps as much as a month, tends to attract the children and give them an on-going interest which has a magnetic effect, thus making the school a bright spot in life. It draws them to school eager to take the next step, to find out, to make a contribution, and to share their hopes and dreams for a brighter future. They tend to see life as a challenge and as a goal rather than as a day-by-day routine to be followed.

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[1] Don Morris, "Happiness Is a Small School", Arizona Teacher, (January, 1966) p. 23.

The teacher who finds time - even ten minutes - to sit down with the children to discuss matters of current interest is able to set a tone which influences the activities for the rest of the day. Such a discussion can stimulate creative expression through various media. Children currently interested in planting flowers to beautify the school grounds or the neighborhood will draw pictures of flowers or yards, collect illustrations from magazines or seed catalogs, make lists of names of flowers, write simple sentence stories about their accomplishments or plans, tell about their experiences, observe with greater depth the illustrations in texts, or derive deeper meanings from songs or stories related to the topic. These activities tend to make education a drawing-out process rather than a putting-in procedure. The children tend to find worthwhile uses for time rather than to wait to be told what to do next. This in turn makes independent work periods as well as teacher-directed class periods more creative, more constructive, and more productive.

The above illustrates only one example. The teacher who sees the possibilities will expand it into a point of view and a philosophy of teaching which will have an influence on children's attitudes both in and out of school. Social studies furnish the meat, the framework, the content on which to build the skills and related learnings in many areas.

Observations and Commendations

The concept of social studies implies that children are engaged in activities which include person-to-person relationships in their natural setting. To become a contributing member of a social group a child must first recognize his place in the group, then see the activities in terms of what can be learned and also what can be contributed. There are many points where concern for these types of relationships were recognizable in some of the rooms in the primary schools at Eloy.

A bulletinboard entitled, "Germs Cause These" showed some of the effects of disease and illness due to germs. This might have been a health lesson, but it also encompassed a social problem.

A farm scene on a bulletin board identified animals and their babies. This might have been a science study of animal life, but it also pointed up family relationships in a social setting.

Bulletin boards showing winter scenes were evident. This might have resulted from a study of weather in the science class but the social implications of man's adaptation to weather and climate were also there.

A chart listing "Our Friends Who Help Us" was definitely a recognition of the importance of human interdependency. In addition to the usual groceryman, milkman, postman, and policeman, these children had identified local helpers peculiar to their own community such as the bus driver, the principal, and even the teacher.

Maps and calendars to show a study of the seasons and the earth's movements helped to build background for use of skills in understanding man's environment.

Collections of rocks, shells and minerals provided scientific information based on understanding of the environment from which the specimens came and the ways they have been used by man. This was social in its implication if not in its original intent.

A bulletin board on pre-historic animals might have been science based, but it was certainly socially related to man's early environment.

These are only a few of the representative examples of social studies content. Even though these evidences were apparent to the observer, there was an indication that the social studies concepts which were being taught were incidental rather than planned. This conclusion was based on specific observations.

Social studies emphasis was lacking on classroom schedules. Only two first grade programs indicated a time set aside for social studies. Not even one second grade schedule gave any time to social studies. While the term social studies did appear on the third grade program schedules, it was obvious that the teaching was based on a textbook which had been adopted for local use. The program appeared to be sequential through the pages of the book.

There was no evidence of a curriculum guide and little indication that a given topic was planned for a particular level. While it is unnecessary and perhaps undesirable for all children at a given grade level to be pursuing the identical studies concurrently, there was lack of evidence of any type of planned program in the social studies in this situation, particularly in grades one and two where no adopted text was used.

One might ask the question, "How much of the work in evidence had been done by the children?" Teacher prepared bulletin boards have their place and may often constitute valuable learning aids, but unless the child has had some active part in what is going on he is put in the role of the passive observer. Resultant learning may be negligible or superficial. Pupil work in social studies was not in evidence in the classrooms.

Conclusions and Recommendations

From the observations one is led to conclude that most of the attention to social studies in the primary grades at Eloy School District has been incidental. Incidental approaches to the teaching of such vital content as the social studies tends to result in repetitions from one level to another and in gaps in learnings. A planned sequence and emphasis would help to alleviate this apparent lack.

A second conclusion is that the emphasis on skills in the language arts areas has led to the lack of attention to the content areas. These are the areas which could provide the meaningful basis for much of the learning in related areas such as language expression, art, music, physical activity, and many others.

These two major conclusions lead to recommendations concerning purposes, physical setting, teaching procedures, and curriculum planning and leadership.

1. Purposes need to be identified. Consider these:

   The social studies should:

   a. Give unity to the day's activities.
   b. Give content on which to base skills.
   c. Stimulate initiative and creativity.
   d. Provide "meat" for the educational diet.

   A study of curriculum content and experiences for young children will lead to the expansion of these goals into more detailed objectives and to the addition of other longer range objectives as the work progresses. Teachers and children with foresight, perspective, and aspirations approach learning with a vigor never experienced in routine activities.

2. The physical setting of the Eloy school is conducive to free open learnings in the social studies areas. The teachers or administrators who were responsible for the designing of the rooms and the buying of the furniture have shown that they had in mind flexibility and adaptation to varying needs. The large airy rooms with warm colors, the large bulletin boards, and the movable furniture suggest a place for living and learning. When the seats are lined up in straight rows facing the teacher's desk which is center front, the implication is a teacher-centered classroom where directions are given and children obey. Moving the furniture into a large circle, a hollow square, into small groups, or into purposeful units implies pupil activity, pupil-pupil communication and cooperation, and teacher guidance rather than teacher domination. Such an arrangement would also create open spaces for dramatic activities, construction work, informal committee work, and display of finished products.

   The purchase of more concrete materials would add materially to the enrichment of concepts in the social studies areas.

   a. Maps and globes are needed. Every primary room has need for locating places where things happen, where relatives live, where family members are serving in the armed forces, where food comes from, where plants grow, where strange animals live, and on, and on, and on.

   b. Projection equipment makes things come alive. The picture, motion or still, which is enlarged before the room serves as a focal point for discussion and also enhances the accuracy of the concepts formed by the children. Some things, such as the turning of the soil with the plow, or the printing of a newspaper, might better be shown in motion. Other things, such as the shape of a mountain, or the texture of the wings of a butterfly might better be shown with still pictures. Motion pictures, slides, strip films, opaque projections, and enlargements not only add to the accuracy of concepts but also provide real information to stimulate purposeful questions, pertinent observations, and worthwhile oral and written expression. It is through these types of activities that children learn to think and organize.

c. Concrete objects are indispensible in establishing accurate understandings. Collections brought into the classroom often clarify learnings as no textbook can do. Seeds, plants, animals, fabrics, sewing implements, simple tools, costumes, antiques, building materials, models, food samples, and many other things brought into the classroom in connection with studies about clothing, food, houses, travel, and so on, add a dimension to learning that lets the child use his sense of touch as well as sight and sound. He loves to feel, to experiment, to manipulate. These are ways of learning.

3. Teaching procedures which involve children in the planning and the doing result in commitment to learning. Children need to be involved in the daily routine. They need to learn to assume responsibility. All these things help to create in the classroom a concrete lesson in social living. Children can take responsibility for watering the plants, feeding the pets, arranging the library table, organizing displays on shelves or tables, counting out and distributing supplies, collecting and filing papers, putting away books or equipment, and keeping the room orderly. These acts help to give the children a feeling of belonging. They cultivate an atmosphere of "our" room, what "we" are doing, and "my" responsibility. Then the child becomes an active participant in what is going on as opposed to a passive receiver of skills or facts.

   In engaging in the active pursuit of social studies concepts children can read stories, read for information, collect pictures, draw pictures, make booklets, make murals, develop table models, dramatize situations, experiment with materials, or exchange information, ideas, and opinions with their classmates. They are learning to do, to think, to judge, to react, to respond, to plan, to organize, to appreciate, and to interpret. These are skills which will contribute to their development as members of a social group in a democracy. They are learnings which will help make them contributing members of a family, responsible members of a group, and effective citizens in a community.

4. Curriculum content needs greater emphasis. There is need for relating the activities in the skills areas to centers of interest in order to develop initiative and creativity on the part of the children. This will make them thinkers instead of imitators, innovators instead of followers, and doers instead of spectators. In order to bring about this transformation in point of view in the social studies at the primary level, it is highly recommended that consideration be given to the development of a unit approach to the social studies. Referring back to the point of view expressed at the outset, one need not consider this as more time in the daily schedule, but different use of

the time now available. The social studies unit would thus furnish the basis for much of the language work, the art work, the extra reading, and often the physical education activities and outside play.

One of the major values to the unit approach in social studies is the boost it gives to comprehension in reading. Such reading could make use of printed materials, but even more significant at this level is the use of chart experience records developed in the classroom from group activities and observations. The children experiment, observe, and discuss. They indicate the learnings they want recorded. The teacher produces their learnings in the form of charts or booklets. The children then can read what has been recorded and can write their own lists, summaries, or stories. This type of reading supplements the basal program and helps to challenge the more capable children.

5. Leadership in curriculum development is a basic need in a program which launches a unit approach as described above. If it were possible to vest in one person, such as an administrative officer or a curriculum coordinator, the responsibility for tapping the local resources for curriculum growth, the results would be most rewarding. Perhaps the size of the school does not justify the addition of a curriculum specialist in each subject area. If the responsibility were centered in one person, that person need not necessarily be an expert in all fields. His (or her) main responsibility would be, not one of showing how, or saying what should be taught, but rather of assuming the role of leadership in tapping the special abilities which are already available on the faculty. One person in the status position of leadership could call on the various faculty members to contribute their special abilities. Through this means he could organize a program utilizing skills and talents now dormant. This type of leadership calls for recognition of individual contributions and encouragement of group response to local leadership. The situation might well be compared to the adaptation to individual differences in ability and special talent in an ordinary classroom.

   With appropriate leadership, the staff members of the Eloy School District Primary Schools could be drawn together to make some professional decisions. They could:

   a. Evaluate the program now in operation.
   b. Decide what social concepts are appropriate for these children.
   c. Make recommendations for general areas at each grade level.
   d. Evaluate materials and textbooks available and suggest additions.
   e. Plan appropriate time allotments for social studies in the daily schedule and for the duration of units of work.
   f. Plan for unity within a grade level and continuity from level to level, thus developing a scope and sequence chart for general reference.

All this leads to the need for coordination of effort, scheduling of meetings, constant evaluation, the establishment of a materials center, and plans for internal leadership.

By way of summary, then; once purposes are established and goals accepted as possible and desirable, the rest falls into place. Much can be done by providing a physical setting conducive to the type of program planned for the children. Goals tend to influence teaching procedures, and curriculum content and organization. Putting the program into action calls for leadership and cooperation. The Eloy School District faculty has "what it takes" to get the job done .

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Best of Children's Literature Series. Indianapolis, Ind.: Bobbs Merrill Co. Graded readers containing literary selections.

Button Family Adventure Series. Chicago: Benefic Press. Twelve titles at Primary level. Highly interesting content to supplement basic reading.

Childhood of Famous Americans Series. Indianapolis, Ind.: Bobbs Merrill Co. Biographical stories. Some of these can be read successfully by children as young as third grade level.

Cowboy Sam Series. Chicago: Benefic Press. Fifteen titles of high interest for supplementary reading from primer level through third grade.

Dan Frontier Series. Chicago: Benefic Press. Series of seven titles ranging from primer to third grade reading difficulty. Highly interesting social studies content.

Golden Rule Series. New York: American Book Company. Sometimes referred to as the modern McGuffey Readers for elementary grades. Emphasize moral and human values

Treasury of Literature Series. Charles E. Merrill, Books, Inc. Columbus, Ohio. Classical stories for graded reading.

The Wonder-Story Books. Evanston, Ill.: Harper & Row. Supplementary readers from primer through the elementary grades. Contain traditional and classical stories.

LANGUAGE ARTS

Grades Four Through Eight

Point of View

The development of language has been one of the major achievements of man. It is through language that man acquires his culture. Language is the means by which ideas, thoughts, feelings, and emotions are best communicated. It is a vital part of every activity in every day living.

Language serves three distinct functions in the lives of individuals, namely: (1) communication, (2) the vehicle of thought, and (3) the transmission of culture.

The need to communicate is largely responsible for the development of language facility of the child prior to the time he enters school. By age six the average child has acquired a listening vocabulary of nearly 24,000 words and a speaking vocabulary of some 5000 words. He has some command over the grammar of his language and uses colorful speech.

The second function of language is its use as the vehicle of thought. Thinking involves the mental manipulation of symbols. These may be in the form of mental images or language symbols. The language symbols used for purposes of communication are the same as those used for thinking.

The third function of language is the transmission of culture. Culture is symbolized in language. The child easily learns the language of his culture as he interacts in his family group and in his community during the early years of his life. If his early language experiences have been in the context of the dominant culture, he will probably have an adequate background for understanding the symbols for that culture when he meets them in reading or other language arts activities. However, if he has learned his language in one of the sub-cultures he will not only experience difficulty in learning the language symbols of the dominant culture, but will lack the experience background necessary to comprehend those symbols.

The language development of children reared in one of the sub-cultures differs in quantity and in kind from that of children reared in the dominant culture. It is limited to those symbols which express the local culture. It is effected by the home environment. The language the child learns in the first six years of his life, must be regarded as good language in that it adequately serves his communication needs in his home and community. It is important that the school show respect for his language and use it to establish communication with him in the classroom. It is through the child's language that the teacher can learn about his experience background and adapt the curriculum to his needs. It is through communication with others that he gains respect for himself and for learning.

Language facility is basic to all learning. The modern elementary school must assume the responsibility for helping children acquire that facility in nursery school and kindergarten programs which utilize extensive experiences and provide for abundant use of oral language. This provision for the early language development of children is necessary to the development of a well articulated language arts curriculum in the middle and upper grades.

The purpose of a program of instruction in language arts is to teach children to communicate effectively. It must begin where children are and recognize their individual differences in listening, speaking, reading and writing.

It is estimated that 95 per cent of language usage is oral. Listening and speaking are the most used language arts skills, yet most neglected in the school curriculum. Textbooks tend to place emphasis upon reading and writing and provide too little instruction in oral language. Classrooms which are overcrowded and formal, greatly restrict the use of oral language in the learning process. This situation can be improved when teachers and administrators realize the importance of listening and speaking as a basis for reading and writing, and make adequate provisions in the curriculum for their improvement.

The listening skills in middle and upper grades are comparable to reading skills. They can be evaluated and they can be improved by instruction. An instructional program which helps children develop understandings and provides practice in using the specific skills will not only improve listening comprehension but will contribute much to their ability to comprehend in reading. In general, the child can comprehend material presented to him orally on a higher level than he can comprehend in reading. Since both reading and listening use the same vocabulary and experience background as a basis for comprehension, reading materials should offer no difficulty when presented to the child orally.

Conversation is the most used of the speaking skills. It is the basis for discussion, and other speaking activities and should be purposely taught. Discussion, useful in all group problem solving situations requires careful instruction and much practice. Opportunities to use discussion skills in pupil-team learning are abundant in many curriculum areas.

The reading program in the middle and upper grades should continue to use and improve the skills taught in the primary grades. In addition it should provide instruction in oral interpretation, reading for various purposes, reading in the content areas, critical and appreciative reading. At these levels children need a wide variety of reading materials in the classroom and an adequate library from which to draw additional literature and reference books.

The primary purpose of teaching composition is to help children learn to express their ideas in writing. The English textbook is in effect a "teacher in print". It can be followed strictly on the assumption that it meets the needs of all children, or it can be used as a reference in a more functional approach to teaching composition. Inasmuch as research has shown that formal instruction has little or no positive effect upon writing the latter approach is preferable.

Children learn to express their ideas in writing by writing regularly and often. The ideas they express are based upon the experiences they have had. In situations where experiences have been limited it is necessary for the school to provide both real and vicarious experiences as a basis for written expression. When children have ideas they wish to communicate they are then ready to use the grammar and mechanics of language in their writing. Grammar should be taught inductively and only as it can be put to use to improve writing.

Spelling instruction should provide children with a spelling vocabulary which they can use in creative and functional writing. While the textbook provides an opportunity for children to learn word analysis skills and a number of basic words it neither makes adequate provision for individual differences nor the learning of functional words needed in writing. Provision for these two important aspects of spelling must be made by the teacher in the classroom.

Handwriting in the middle and upper grades should emphasize speed and legibility. A good plan proposed by Naiman[1] is to conduct an intensive writing program at the beginning of school year to help each pupil to evaluate his own handwriting. The teacher is then able to set up an instructional program for the remainder of the year based upon individual needs.

Observations and Commendations

General. There was evidence in every classroom that teachers were interested in improving the effectiveness of their work in the language arts areas. They expressed great satisfaction with certain aspects of the program which were producing results that they desired. They were grateful for the addition of instructional materials which enabled them to better meet the wide range of individual differences in their classes.

The physical environment for learning was characterized by small, crowded, inadequately equipped classrooms. In spite of all of these handicaps the teacher-learner relationship in each room was excellent. There was much evidence that teachers had given of their time and their money to make their classrooms a good learning environment.

There was evidence that new materials had been added to the instructional program. However, there was no evidence that the addition of materials or the changes in instruction had been based upon an organized curriculum study in which teachers participated.

Grades Four, Five, and Six. Reading instruction in most classrooms was scheduled during the forenoon. The amount of time devoted to the teaching of reading skills varied greatly between classes although the minimum time recommended was 300 minutes per week for grade four and 225 minutes per week in grades five and six.

While much time and effort had been expended on the teaching of phonics in the primary grades, many children appeared to experience difficulty in using those skills to identify new words. A much greater problem, however, was the inability of children to comprehend the material presented to them in reading and the content areas. It was apparent that this difficulty was primarily due to an inadequate experience background and limited language facility. A new remedial reading program was in the process of being set up to diagnose these difficulties and to provide instruction on an individual or small group basis.

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[1] Nathan Naiman, "Handwriting Blitz", Readings in the Language Arts. (New York: The Macmillan Company, 1964), pp. 173-193

In a few classrooms listening was being used to develop the comprehension skills. Most of the instruction was provided through the exercises in the reading laboratory.

Experiences in speaking for the most part were limited to those activities prescribed in the English textbook. Participation limited to total group situations tended to minimize the amount of oral communication, and provide practice for those who had achieved a fair degree of competence.

The English for Meaning textbook and workbook provided the basis for most of the writing done in the intermediate grades. The approach was formal with little or no attention given to the individual needs of children or their differences in ability. Teachers expressed some dissatisfaction with the workbook approach because children were having difficulty expressing their ideas in writing.

No creative writing was observed in the classrooms.

The quality of handwriting as seen in workbooks and on other written work appeared to be very good. There seemed to be no common pattern with regard to the amount of time spent on formal practice. Handwriting in several classrooms was correlated with spelling or composition.

The spelling for the most part was taught from the textbook using a one group method. One teacher was using the tape recorder in an attempt to improve the amount of learning in his classroom. In another classroom much emphasis was placed on the auditory discrimination of sounds in the words as an aid to learning.

Grades Seven and Eight. The seventh and eighth grade classrooms were small, crowded and supplied with a minimum of materials for instruction. The students appeared to be highly motivated and learning was evident. The teachers showed that they were capable and interested in providing quality experiences for their students. The classroom rapport was excellent.

Several teachers taught the reading and language arts in their home rooms. Others participated in an exchange which permitted each teacher to teach the subject which he felt most competent to teach.

While there was a general lack of reading materials in most classrooms, two teachers had developed classroom collections of paperback books. Two classes were given the opportunity to participate in a book club.

Reading was taught developmentally using the SRA Reading Laboratory in most of the classrooms. The State adopted literature books were being used in all groups. Two teachers remarked that they still preferred to use the older

Prose and Poetry for a part of their reading material.

English was taught as a separate subject using the English for Meaning textbook and workbook. There was no evidence of functional or creative writing except that done in the workbooks.

One of the classes had published a school newspaper in former years as a means of providing an opportunity for children to write.

Spelling instruction was from the textbook. Handwriting instruction was correlated with spelling in several of the classrooms.

In general, most of the instruction was formal. Attempts to apply the learning in a functional manner were often less than satisfactory.

Conclusions and Recommendations

General. Grades six, seven and eight will soon occupy a new school building and grades four and five will remain at Central School. The recommendations and conclusions are submitted in accordance with that organizational plan. The following general recommendations are made here because they apply equally to all grade levels.

1. A curriculum committee made up of an administrator and a number of teachers representing all grade levels should undertake a study of the broad area of language arts. Consultant help should be used as needed. Such a committee should:
    a. Evaluate the present program of instruction to find out how well it is meeting the needs of children.

    b. Identify the major problems that need to be solved.

    c. Set up new and realistic objectives for each grade level in each of the areas of instruction including: reading, listening, speaking and writing.

    d. Study the cultural implications for a language arts program in the Eloy community.

    e. Develop some guidelines for teaching language arts to culturally disadvantaged children.

    f. Set up a list of instructional materials needed at each grade level.

    g. Consider types of organization best suited for effective teaching of reading.

    h. Report the findings and recommendations to the administration and total faculty for consideration.

2. As children gain in their ability to read they need to have access to an abundance of books and other reading materials.

   a. Additional reading materials should be made available in the library. The present limit of one book per week discourages wide reading on the part of children. Additions should include a wide variety of books on many reading levels.

   b. Additional reading materials should be made available in all classrooms. While the reading laboratory is providing multi-level material for teaching reading skills there is need for more high interest low vocabulary material. The development of paper back libraries should be continued from school funds if possible.

3. Present day classrooms should make maximum use of audio-visual equipment in teaching. Teachers of language arts should have a tape recorder for use in their classrooms because of its great value in teaching listening, oral usage and oral reading.

4. Teachers should be encouraged to experiment with different types of grouping within their classrooms to increase the amount of interaction in the learning process. Pupil teams of two should be used for individualizing spelling instruction, practice in oral reading, and reading content material. Teams of three or four should be used in situations involving elaborative thinking and problem solving.

Fourth and Fifth Grades.

1. The reading skills program should be continued in its present form until the findings of an overall study committee are known. More emphasis, however, should be placed on the development of the comprehension skills. Material being read should be checked to make sure that it is within the range of children's abilities. An occasional oral presentation of a reading lesson should be used to find out if children have the experience background and language facility to comprehend the material.

2. Much more attention should be given to the development of listening comprehension. The administration of a listening comprehension test would provide data relative to the ability of children to comprehend spoken language. Children in the intermediate grades should be able to comprehend material presented to them orally at a higher level than they can comprehend material presented to them in reading. An effective program of instruction in listening will contribute much to the improvement of comprehension in reading.

3. Provision should be made for greater use of oral language in all classrooms. More real and vicarious experiences should be used as a basis for conversation, discussion and reporting. Use of puppets, creative dramatics and choral speaking are highly recommended as a means of developing oral language facility.

4. Children's experiences should be used as a basis for creative writing. Much creative expression will help each child to gain confidence in his ability to express his ideas in writing. Such efforts should be encouraged by teachers and constructively (never negatively) evaluated. Initial improvement can be achieved through the oral and written comments of the teacher. Later children can be taught the basic proofreading and editing skills.

5. Functional writing should serve a real purpose whenever possible. Reports that are correlated with the study of social studies or science; letters written to obtain information for class use or to thank a speaker who has contributed to classroom learning are excellent examples of functional writing.

6. The teaching of spelling should be correlated with writing. Words children misspell in their creative and functional writing should be given some priority in the spelling lesson. Individual spelling notebooks containing words most used in writing should be encouraged.

7. Schedules should be revised to permit greater integration of the language arts and social studies. While it is necessary to teach many of the skills separately the content of the social studies provides abundant opportunities to use those skills in a meaningful way.

Grades Six, Seven, and Eight

1. The nature of the reading and literature program in the sixth, seventh and eighth grades will necessarily depend upon the type of learning students have experienced in the preceding grade levels. The comprehension skills should be re-taught as needed and then used as a basis for development of the various skills identified with critical reading. Much of the practice for both types of skills can be provided through listening.

   Upper grade students should be provided with many opportunities to read good literature books from both library and classroom collections. Informal book discussions provide better motivation for wide reading than the much-used book report.

2. A program of instruction in listening which parallels the reading program should be provided.

3. More emphasis should be placed on the teaching of oral language. Ability to speak is a pre-requisite to writing.

4. A unit on the English language should be developed at one or more grade levels. Such a unit would help students become interested in the language they use and should result in better learning.

5. Grammar should be taught inductively and as students can put it to use in their writing. The emphasis should be placed upon the expression of the students' ideas and the improvement of that expression through proof-reading, editing, and re-drafting.

6. Creative writing should be a regular part of the English program. Creative efforts should not be too critically evaluated, but should be encouraged and improved as necessary to meet standards for communication to others.

7. Wherever possible the language arts and the social studies should be scheduled in contiguous blocks of time to permit a maximum of integration of the two related areas.

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SOCIAL STUDIES

Grades Four Through Eight

Point of View

The social studies program in the elementary school should help children prepare themselves to live in our democratic society. While the school cannot provide all of the experiences necessary for the realization of this broad objective it has an obligation to provide a program of instruction which is adapted to the needs of the community and which will contribute as much as possible toward that goal.

The modern social studies program stresses the use of the inductive processes in developing major generalizations. It is built around social problems of importance rather than separate subjects. It uses organized subject matter as a resource for learning and for solving problems.

The social studies can make a direct contribution to the primary goals of education namely: (1) thinking abilities (2) self-realization, (3) human relationships, (4) economic efficiency, and (5) civic responsibility. The major purposes of the social studies as summarized by Michaelis are as follows:

1. Information, Concepts and Generalizations

   The geographic, economic, political, historical, and social factors of greatest importance in the past, the present and the emerging future.

   The impact of science, technology, education and values on man's changing ways of living.

   The interaction of people in their environment, man's use of resources, the effects of weather and climate, man's adaptation to and modification of the environment, and time, distances and space relationships.

   The similarities and differences in ways of meeting basic human needs here and now and in earlier times.

   The growing interdependence characteristic of our times at home and throughout the world.

   The contributions of individuals and many cultural groups to man's changing cultural heritage.

   The role of the home, church, government, and other social institutions in human affairs.

   The powerful influence of cultural values on man's way of thinking, believing and acting.

The operation of basic human activities or social functions such as transportation, communication, government, education, production, distribution and consumption of goods and services, conservation, esthetic and religious expression.

The democratic beliefs that are important in our way of life:
  Respect for the worth of each individual.
  Maintenance of rights and freedoms under law.
  Freedom of speech, religion, press, assembly and inquiry.
  Acceptance of responsibilities related to freedoms.
  Equality of justice and opportunity for all.
  Use of intelligence to solve problems.
  Faith in the ability of men to govern themselves.
  Government by consent of the governed.
  Majority rule with minority protections.
  Personal sacrifice for the common good.
  Separation of church and state.
  Cooperation with others to secure world peace.

2. Skills and Abilities

Utilizing instructional resources such as textbooks, library materials, community resources, and audio-visual materials.

Locating, gathering, appraising, summarizing and reporting information.

Interviewing, listening, and observing to gather ideas.

Reading and studying independently.

Interpreting and making maps, graphs, tables, time lines, and other graphic materials.

Interpreting sequences of events, time periods, chronology, and trends.

Organizing information from several sources and presenting it in oral, written or graphic form.

Using problem solving, critical thinking, abilities.

Identifying and defining problems, issues, and standards.

Formulating hypotheses, generalizations and plans of action.

Distinguishing facts from opinions, relevant from irrelevant information, means from ends, primary from secondary sources and conclusions from supporting evidence.

Using criteria to make choices, weigh alternate plans of action, and appraise progress toward individual and group goals.

Detecting errors of thinking, unstated assumptions, unwarranted assertions, and uses of propaganda techniques.

Comparing ways of living, points of view, means of solving problems, and modes of expressing ideas.

Working as a member of a group.

Making plans for group work.

Assuming the role of leader or follower as needed to carry out group plans.

Adhering to group standards and using parliamentary procedures.

Evaluating individual and group efforts to achieve common goals.

3. Attitudes, Appreciations, and Behavior Patterns

Appreciation of the American heritage, democratic ideals, human freedom, and the brotherhood of man.

Respect for self, and for others regardless of race, creed, economic status, or national origin.

Attitudes of open mindedness, responsibilness, cooperativeness, concern for others, and creativeness.

High regard for the home, school, church, government, and other institutions that are important to our way of life.

Enlightened loyalty and patriotism based on devotion to one's country and clear understanding of current problems.

Appreciation for the contributions of others here and now and in early times and faraway places.

Appreciation of the many rights, responsibilities, and privileges accorded citizens in a democracy in contrast to those in a totalitarian regime.

Appreciation of the importance of the moral, ethical, and spiritual values in human affairs.

A willingness to act in ways conducive to human progress.[1]

It is apparent that the acceptance of these or similar objectives for the social studies program in the elementary school would raise many problems related to the organization of subject matter and the best approaches to teaching.

A good social studies program must begin with the formulation of a set of objectives for all grades. When these are clearly understood by all concerned a program of improvement can be started.

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[1] John V. Michaelis, Social Studies for Children in a Democracy. Recent Trends and Developments, Third Edition. (Englewood Cliffs, N.J.: Prentice-Hall, 1963), pp. 14-16.

Observations and Commendations

Grades Four, Five and Six. The social studies program for grades four, five and six appeared to be limited to the formal study of the material contained in an integrated textbook. A set of maps and a globe were observed in each classroom. No additional reference books were in evidence.

The materials placed at normal grade levels without consideration for the reading levels of children presented a problem for several teachers. Some found it necessary to read the material to children to help them comprehend.

Although the minimum time allotment for social studies was 200 minutes for grade four and 300 minutes for grades five and six, the amount of time actually shown on individual schedules varied from 30 to 100 minutes daily. In a few cases the social studies period was scheduled near one or more of the language arts periods so that correlation between the two areas was possible.

A few teachers had reported that they had taken field trips in the past, but the policy regarding such activity was not clearly understood.

Although the teachers in the intermediate grades were aware of the values inherent in a good social studies program they did not feel that they were meeting the needs of the children in their classes. All expressed a desire for more reference materials which children could read.

Grades Seven and Eight. The upper grade teachers of Central School are to be commended for their efforts to make the social studies a vital area of learning for the students. Probably the most important aspect of that learning observed was the student council. Through it students were given an opportunity to take an active part in classroom and school government.

Commendations are also in order for the way in which they were carrying out their responsibilities in the teaching of social studies without the benefit of a teachers guide or adequate materials for instruction.

Social studies in the upper grades consisted of separate classes for history and geography in seventh grade with 200 minutes per week allocated each subject in the schedule. A similar amount of time was given to the study of civics in the eighth grade on the table of minimum time allotments. However, most eighth grade classes received instruction in both history and civics.

The textbook method was used in all classes observed. Use was made of audio-visual materials to supplement the text when they were available. Class discussion of the material usually followed the reading of the material and the teachers presentation. In one instance students were observed working in pairs as an aid to their comprehension of the material.

Team efforts were observed in which teachers exchanged classes for social studies and English. This team effort allowed each teacher to teach the subject he felt most competent to teach.

Several teachers expressed a desire to teach by the unit method, but felt that the size of their classes and the dearth of materials made unit teaching impossible. They preferred to use the textbook method supplementing it with related activities.

Maps in the classrooms were outdated and inadequate. An up-to-date map of Arizona for use in the eighth grade was apparently unavailable. Not all rooms had a globe. There were no reference books available except the encyclopedia.

Recommendations and Conclusions

General

1. A social studies curriculum based upon the content of a single series of textbooks can not possibly meet the needs of children in the elementary schools of Eloy School District for several reasons:

    a. It emphasizes the memorization of information rather than the use of information to solve problems.

    b. Critical thinking cannot be taught from a single source of information.

    c. It does not provide children with a meaningful sequence of learnings which can be adapted to their special needs.

    d. The content is too difficult to be understood by many children.

    e. There is no provision for individual differences.

2. A representative committee of teachers should make a study of the social studies curriculum in grades one through eight. Such a study should culminate in a Social Studies Guide for Grades K-8. The state guide for the social studies will serve as a point of departure. In adapting it to the needs of the local schools special attention should be given to:

    a. the formulation of objectives which are within the capabilities of the children being taught.

    b. the development of a scope and sequence chart for grades kindergarten through eight.

    c. the grade placement of present materials so that they can be used to the greatest advantage.

    d. the listing of supplementary materials which are needed at each grade level including sets of reference books, maps, globes, and films.

    e. the development of sample units for each grade level.

3. A Community Resources Guide should be developed which includes:

    a. information about places of interest recommended for field trips with directions for contacting and arranging for visitation.

    b. regulations regarding the use of school buses for field trips.

    c. a list of people in the community who would be willing to talk to classes about their vocation, avocation or travel.

    d. factual information about the community.

    Much of the data for such a guide can be gathered and assembled in eighth grade classes during their study of Arizona history.

4. School buses should be made available for field trips in the Eloy community and to major cities.

5. More audio-visual materials should be made available to supplement the textbooks at all levels.

6. Reference books in small sets representing varied authorships and different reading levels should be made available in each classroom.

Grades Four and Five. The teachers in grades four and five were doing a commendable job teaching the social studies using the textbook approach. The following recommendations are offered for the improvement of the present program.

1. Consideration should be given to the unit method of teaching as a way of increasing the amount of meaningful learning in the social studies. A gradual transition which involves the scheduling of larger blocks of time to permit greater freedom of activity, and the enrichment of the present textbook method is recommended.

2. Social studies and language arts periods should be scheduled contiguous to each other to facilitate greater integration of these two related areas of learning.

3. Greater use should be made of community resources in grade four. Field trips should be used whenever possible to provide real experience.

4. Pupil teams of two, three or four should be used to increase the use of oral language in the learning process.

Grades Six, Seven and Eight

1. With a new school for grades six, seven and eight nearing completion, serious thought should be given to the core organization for teaching the language arts and the social studies. This type of organization built around a common core of learnings believed necessary for effective citizenship makes maximum use of the language arts skills in an

experience approach to learning. The major characteristics of such a program are:

a. The core idea is based upon the psychological principle that learning involves change in behavior.

b. The core uses information from a wide variety of sources to solve those problems which are considered vital for the students of a particular school community.

c. The core makes maximum use of problem solving skills in the solution of personal and social problems.

d. The core involves cooperative planning by teachers as well as joint planning by students and teachers.

e. The core incorporates individual and group guidance into the teaching process.

f. The core program utilizes a large block of time in which the language arts and the social studies are taught in an integrated manner.

2. It is recognized that an immediate change to a core type program is neither possible nor advisable at this time. However, certain steps, if taken now, may make such a change possible in the near future.

   a. A study of teacher competencies should be made to ascertain the number of teachers who are qualified to teach both language arts and social studies.

   b. Present schedules should be revised to group language arts and social studies in a half day block. A check of minimum time allotments indicates that this is now possible.

   c. The present textbook method of teaching the social studies should be improved through the use of a problems approach, more real experiences, greater use of audio-visual aids and other teaching materials.

   d. Teachers should be permitted and encouraged to use the unit method of teaching if they prefer to do so.

   e. Reference materials should be added to the classroom libraries. Sets of eight books representing different authorships and a variety of reading levels are recommended.

   f. Maps and globes should be up-dated.

3. The student council should be continued and improved as a means of helping students appreciate our representative form of government, and learn by experience the responsibilities of citizenship in our society.

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MATHEMATICS

Point of View

During the past several decades the mathematics curriculum at the elementary school level has primarily been concerned with the development of the pupil's computational skill, a social type of application of simple arithmetic and the mechanical solving of a series of stereotyped word problems. In the past, there has been little or no effort to emphasize mathematical understanding and practically no attempt to stress a spirit of discovery through an inductive approach. Compatible with ability and grade level, children need to gain insight into the nature of the real number system. Such learning experiences are possible when children come to understand number relationships, discover the properties of the basic operations and perceive patterns among numbers. If proper methodology is employed by the teacher, the brighter children are able to expand their mental powers, while at the same time, the average and some of the less academically talented boys and girls are intrinsically motivated by the new content and discovery method.

Arithmetic is not a series of isolated and unrelated facts to be committed to memory but is a way of thinking to be presented as a growing body of related concepts. In any program of modern mathematics, there should be selected a series of strands which permeate the elementary curriculum from grades 1 through 8. Ideas of mathematical structure, logic and relations should characterize the selected strands.

The strands which have been selected by the State Mathematics Guide Committee are presented as follows and represent the very core of a sound sequentially developed mathematics program for the elementary grades.

1. Number and Numeration - The concept of number can be discovered and understood through a study of several contrasting systems. Through such study, children will learn that the kinds of symbols used are really unimportant; identification of properties are important. A study of other systems of notation should give boys and girls a deeper understanding of our base ten system.

2. Sets - The development of concepts of number and the several operations with numbers should be based on set structure. Children should be made to realize that number is a property of a set. For example, addition of numbers is based on the union of sets; multiplication is related to the cross product of sets. Early development of concepts and language of sets will facilitate pupil understanding of the arithmetical processes.

3. Operation - The four fundamental operations characteristic of the elementary curriculum in mathematics are addition, subtraction, multiplication, and division. The boys and girls should be led to discover the inverse relation of addition and subtraction and also of multiplication and division. It is essential that pupils come to grips with the properties of addition and subtraction, such as the commutative and associative properties. These should be

introduced in relation to the supporting set basis. It is imperative that the rationale of all logarithms be established utilizing the basic properties of the fundamental operations.

4. Mathematical Sentences - Stated in simple terms, mathematics is a system of communication which helps man express ideas. Children at the first grade level should learn how to read and write a mathematical sentence. Children should learn at an early stage of their educational development that they are dealing with a series of open and closed sentences and that each time they close an open sentence, they must evaluate the idea expressed in the statement as a means of determining whether the idea expressed is true or false. This, in essence, represents the key to mathematical thought. The proper understanding of relations expressed by mathematical symbols makes possible the solution of mathematical problems. For example, such a sentence as $\square + 6 = 12$ is a good beginning.

5. Measurement - Primarily, measurement represents a comparison process wherein numbers are assigned to concrete objects. As stated by the Mathematics Guide Committee, "... it is necessary to agree on standard units of comparison. Since there is a possibility of human error in measurement, all measures are approximate except those derived by counting. Preciseness depends on the size of the unit". It is quite important that the arbitrariness of units and approximation in measurement be introduced early through specially designed activities.

6. Geometry - At the elementary school level, geometry includes a study of points, lines, planes, space, construction of geometric figures, measurement of geometric figures and an analysis of geometric facts and relations. In a modern approach to the subject, geometry should include the discovery of principles underlying area and perimeter and should also include the development of simple concepts related to points, lines, and planes in space. For example, children should discover after understanding what is meant by a geometric point, why one triangle cannot equal a second triangle. It is quite essential that geometry be interrelated with all strands of mathematics throughout the grades.

What are some of the critical characteristics associated with a more modern approach to the teaching of elementary school mathematics? A few of the most important characteristics are listed as follows:

1. The modern program in mathematics is designed to make students think at a more abstract level.

2. The content and related methodology are of such nature that students are led to mathematical discoveries on their own. It should be noted that the mathematical discoveries children make are not new discoveries to man, but are new to children.

3. The modern program in mathematics goes beyond the social aspect of the grocery store.

4. The modern program stresses understanding of the number system.

5. Greater unification and integration of mathematical ideas and procedures characterize a more modern program in mathematics. Separate treatment of the various branches of mathematics becomes more difficult (and even inadvisable) in a modern approach to the subject.

6. A modern program in mathematics suggests that increased emphasis be given to such basic principles and patterns as those inherent in number systems, and to the properties of operations from which we abstract generalizations. All of these are integrated by such unifying concepts as the notion of a set, the notion of a number system, the notion of a mathematical condition, and the notion of a relation.

If we accept the potential merits of the hypothesis stated by a famous Harvard University psychologist that all knowledge currently known to man can be taught to all children at all age levels and at all levels of ability, then to have mathematical reasoning and understanding characterize the modern program in mathematics is not only desirable but becomes imperative. The key variable to the above stated hypothesis is the adjustment of the complexity of the knowledge to the grade level and ability of the child.

How does a modern program in mathematics differ from the traditional program in arithmetic? For one thing, a modern program is characterized by greatly increased precision in the expression of mathematical thought. For example, when a child says (and thinks) "nine and seven 'is' sixteen", he understands that "9 and 7" is really another name for sixteen. In this situation, use of the singular verb helps the child to understand this important concept which becomes quite important as he progresses in mathematics. Precise use of mathematical discourse enables boys and girls to distinguish between *number* and *numeral*. Children discover that number in a quantitative *idea* while numeral is a symbolic representation of the abstract idea. *Children learn that a numeral can be seen and written and that a number cannot be seen or written*.

In a modern approach to the teaching of elementary school mathematics, the children learn to distinguish between cardinal and ordinal number. They come to understand that cardinal interpretation of number tells us "how many" and that ordinal interpretation of number shows "position". The children also learn that any given number may be expressed in many different ways. For example, he learns that 7 + 2, 3 x 3, 15 - 6, and 5 + 4 are all names for the number 9. In other words, the child is led to discover that computation is actually a process of replacing one number expression with an equivalent one in more convenient form. To help the pupil comprehend this idea, the creative teacher will illustrate this concept from the point of view of the number line as shown in the figure below:

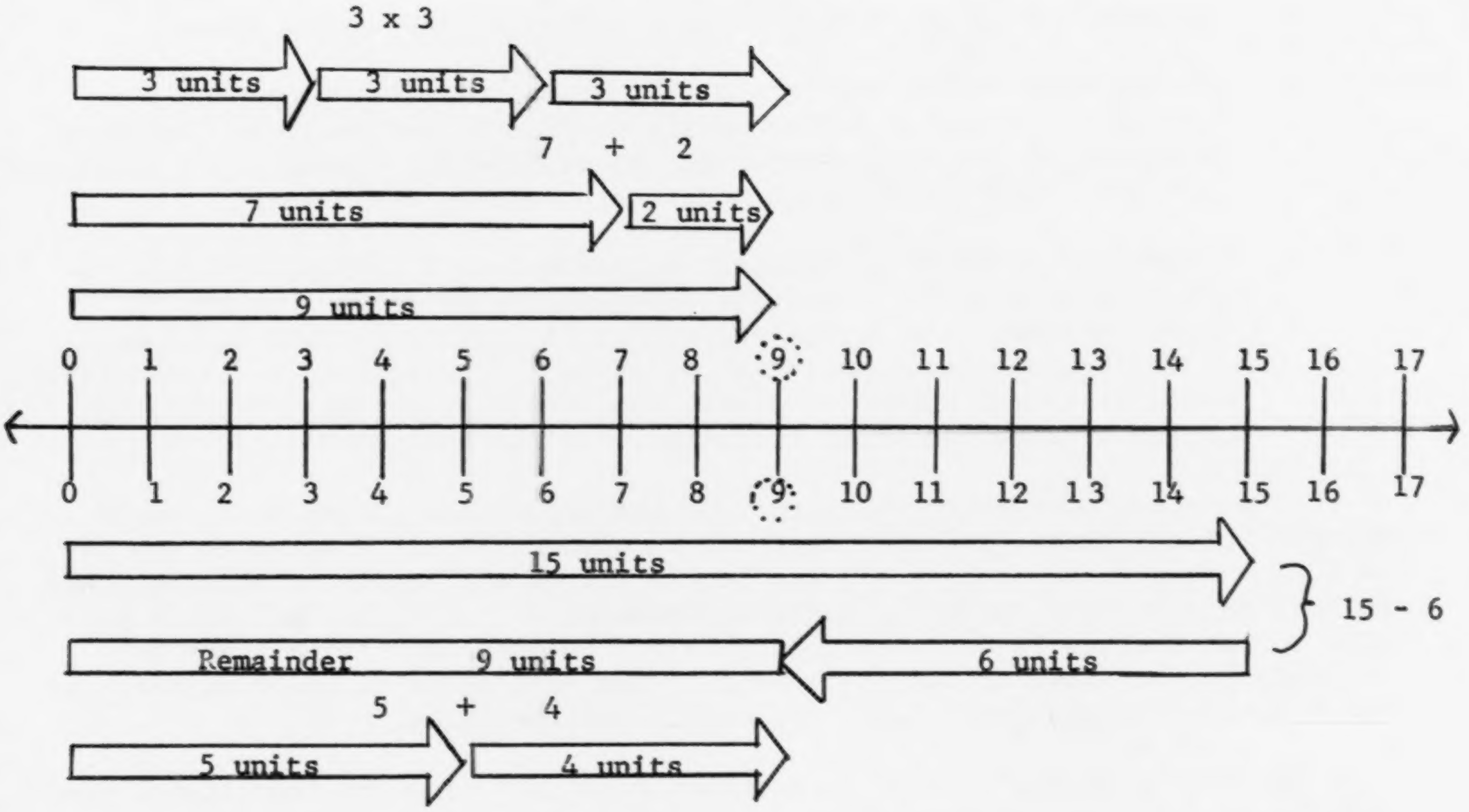

3 x 3
3 units
3 units
3 units
7 + 2
7 units
2 units
9 units
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
15 units
15 - 6
Remainder 9 units
6 units
5 + 4
5 units
4 units

Figure 4-1
Different Names for the Same Number

In a modern approach, the teacher stresses various aspects of our decimal system, including place value. It is difficult for children to perceive the idea of numbers or to add, subtract, multiply, or divide with understanding if they do not understand the place-value concept. For example, when learning to subtract 50 from 157, they must conceive of the 157 as 15 tens and 7 ones in order to subtract 5 tens from 15 tens: 157 - 50.

As the children continue in a more up-to-date mathematics program, they should experience systems of numeration with bases other than ten as a means of reinforcing their discovery and understanding of place value. If, for example, a base five system is explored and understood by the children, they will be in a much better position to understand and perceive our base ten system of numeration. As an illustration of what is meant, an example of a base five system is presented below.

TABLE IV

GROUPING BY FIVES			
	Fives	Ones	Base Five Numeral
a	2	2	22_{five}
b	3	0	30_{five}
c	1	2	12_{five}
d	3	4	34_{five}
e	4	4	44_{five}
f	4	0	40_{five}

GROUPING BY FIVES					
	Twenty-fives	Fives	Ones	Base-ten numeral	Base-five numeral
a	1	1	2	32	112_{five}
b	1	3	1	41	131_{five}
c	2	4	0	70	240_{five}

In a quinary (five) system the first place to the left of our reference point is the units position. The child then discovers that the next place to the left represents the number of fives ($5^1 = 5$), the next place the number of five-fives, or twenty-fives ($5^2 = 25$), the next place the number of five (five-fives), or the one hundred twenty-fives ($5^3 = 125$). The child is led to discover that we use or symbolize these place values by the powers of five using the decimal language symbols - 5^0, 5^1, 5^2, 5^3, 5^4, and so forth. (for additional insight relative to a fives system of numeration see Supplement A.)

A modern curriculum in arithmetic introduces the concept of sets. The children will soon discover that the language of sets is a most significant tool for expressing abstract ideas. Children at the primary level, for example, will discover that if the members of the two sets are in one-to-one correspondence, they have the same cardinal number. The concept of subsets will help the children understand the relationship of subtraction to addition.

Geometric concepts are introduced to the children at the primary level. More geometric concepts are discovered as the boys and girls progress through the middle and upper grades. The child is encouraged to discover many geometric properties for himself. For example, as he measures line segments drawn from points on a circle to a fixed point called the center, he will discover that each line segment is of the same measure.

In addition to becoming proficient in number facts, children learn to express the basic operations (i.e., addition, subtraction, multiplication, and division) in the form of number sentences. This helps the children understand the relationships among numbers. Number sentences are helpful in exploring relationships between operations. An example of this is the addends-sum relationship. An exploration of the addends-sum relationship will lead the pupils to discover that for each addition fact there is a related addition and two related subtraction facts. In the number line illustration which follows (Figure 4-2), the boys and girls will discover that all four of the mathematical sentences express the same relationship among the addends 3 and 5 and the sum 8.

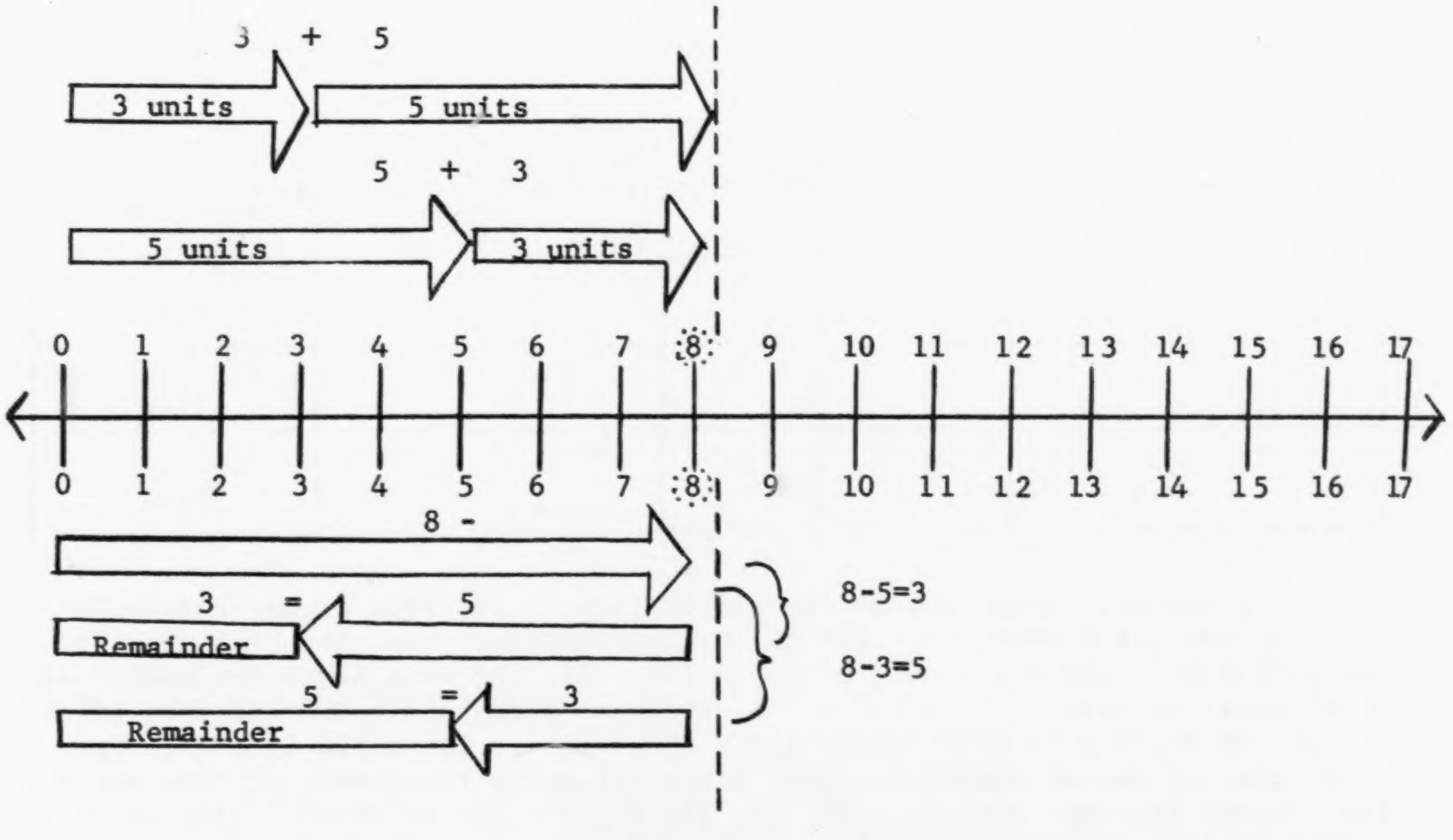


Figure 4-2
Addends-Sum Relationship

In a modern mathematics program, the children will explore the commutative and associative properties of addition. They will understand subtraction from the point of view of counting and will discover the associative property of subtraction. The boys and girls will explore the meaning of subtraction in relation to the take-away idea, will understand subtraction from the point of view of comparison, and will discover the meaning of additive subtraction. When considering the meaning of multiplication, the children will come to understand the commutative, associative, and distributive properties of multiplication and will discover that multiplication distributes over both addition and subtraction. When concerned with the operation of division, the children will perceive the distributive property of division and will discover the factors-product relationship. As the children increase their number knowledge, they will discover that the set of names for a number is infinite and that the set of whole numbers is infinite. In a modern program, the children will be introduced to integers and will discover the meaning of both negative and positive integers. The boys and girls will also understand the concept of fractional number in an up-to-date mathematics program. In terms of fractional number, the children will discover why one inverts in the division of fractions and will understand the meaning associated with the product when two fractions are multiplied. (For further clarification relative to the understanding of fractions see Supplement B).

In a modern arithmetic program, more stress is placed on principles for two reasons: (1) to give the children the necessary insights to construct new facts and concepts from what they already know and (2) to give the children some understanding and appreciation of the basic structure of mathematics. *It is most essential that the teacher realize that the heart of the new programs in mathematics represents a new approach in methodology. The new content can be mechanically taught with the result that no gains in mathematical insight and understanding will be realized by the children.*

Only a few aspects of a modern curriculum in mathematics have been discused. It is hoped that the rationale presented will help elementary teachers of mathematics understand that the new approach is concerned with how children learn and that major attention is given to mathematical understanding, a spirit of discovery, and an involvement of the children in a series of critical thinking experiences.

Observations and Commendations

The observations and commendations presented in the paragraphs to follow will be specifically associated with the elementary schools visited.

Eloy Central School. In each of the classrooms visited, the teachers appeared to have a genuine interest and concern in both the educational and social welfare of their children. The rapport which existed among pupils and teachers was good.

The rooms visited were sub-standard in nature and therefore made the teaching process more difficult for the faculty. For example, in Room 15, the artificial lighting consisted of four exposed light bulbs. The classrooms of the Eloy Central School lacked sufficient bulletin board and blackboard space. There appeared to be almost a complete lacking of audio-visual equipment available for teacher use. In addition, there were no provisions to darken the rooms. There was no evidence to indicate that supplementary textbooks and materials in the area of mathematics were available for student and teacher use. The classrooms seemed to be void of any supplementary materials. The only evidence of books noted were the mathematics textbooks issued the students.

A more recent edition of a modern mathematics textbook series appeared to be in use at the primary and intermediate grade levels. Even though primary grade and intermediate grade teachers were using a highly sophisticated series of modern mathematics textbooks, the teaching methodology employed was traditional in nature. The upper grade teachers were using the traditional Winston series.

There was no evidence of conceptual aids available for teacher use in helping the boys and girls discover simple mathematical properties. Apparently little to no instructional equipment (e.g., compass, ruler, protractor, etc.) had been provided for teacher and pupil use.

There were several situations where the teacher had purchased from personal funds some needed equipment to assist in the teaching of mathematics.

There was no evidence that the faculty had been organized to design and build a mathematics curriculum suited for the boys and girls who populate the Eloy Central School. The mathematics curriculum simply represented the selected text (i.e., a page-by-page "coverage" of the mathematics textbook). Page-by-page following of the selected textbooks is a poor substitute for a curriculum in mathematics. There is little relationship between the employment of a given textbook as the on-going curriculum and meeting the varying needs and wide range of abilities which characterized most of the classrooms visited. With such a dirth of supplementary materials, the teachers had little choice other than following the selected or adopted mathematics textbook.

There appeared to be a complete lack of an organized structure designed to foster and promote vertical and horizontal articulation among teachers relative to the mathematics program. There was no evidence of planned articulation in the area of mathematics between the Eloy Central School and the Eloy Union High School.

As the faculty at the Eloy Central Elementary School appeared to be a hard working dedicated group of teachers, it is felt that their ability and willingness to respond to administrative support and sound educational leadership are excellent. It is the judgment of the mathematics consultant that the faculty is severely hampered and restricted in relation to the existing poor physical conditions and lack of supplementary materials and instructional equipment. It is felt that a well planned program to remedy the lack of equipment and facilities will give the current faculty the opportunity to accomplish the goals and objectives, which as dedicated teachers, they want to do.

Eloy Primary School. As randomly selected classrooms were visited, it became quite apparent that the rapport which existed among children and teachers was good. The dedication to boys and girls exhibited by the faculty was reflected in excellent student behavior. In general, the classrooms were attractive and quite pleasant. The classroom climate fostered by the faculty helped greatly to establish an environment conducive to learning. It was evident that the children attending the Eloy Primary School liked their school and teachers. In light of the pleasant atmosphere which characterized the entire school campus, the faculty and administration should be commended.

It was noted that the newly selected textbook series in arithmetic was closely followed by the teachers from grades one through four. The question is raised, however, whether the highly sophisticated mathematics program characteristic of the selected textbook series is suited for most of the boys and girls who attend the Eloy Primary School. It appeared that the arithmetic textbook series was followed in a page-by-page sequence even if the organizational pattern did not always seem to be appropriate for the children and the particular learning situation.

There seemed to be a definite lack of supplementary materials in the area of primary mathematics. Complete dependence on the text materials appeared to permeate grades one through four. There was little evidence to indicate that conceptual aids in the area of primary mathematics had been purchased for teacher utilization. Some faculty members had constructed some helpful and simple conceptual aids to help the children discover a few of the basic properties of our number system.

No course of study, syllabus of instruction, or course outline had been developed by the faculty in the mathematics facet of the curriculum. Consequently, no faculty-developed sequential program in mathematics designed to meet the needs of the children in attendance was in existence. What articulation among teachers at a given grade level that did exist was informal in nature and appeared to lack a systematic and formally organized approach. There appeared to be little to no articulation between grades (from one through four). In addition, there seemed to be little or no articulation and curricular relationship in mathematics between the Eloy Primary School and the two other elementary schools comprising the Eloy Elementary School District.

There appeared to be little evidence to indicate faculty organization for curriculum development. At the time of the survey, no faculty committee had been established to study, modify, develop and improve the mathematics curriculum.

It should be noted that orders had been placed by the administration of the Primary School for a variety of audio-visual equipment (e.g., record players, overhead projectors, tape recorders, etc.). This represents a significant step in the right direction. The procurement of such instructional aids should assist the faculty greatly in their effort to enrich and improve the instructional program.

The teachers were greatly hampered in their efforts by the lack of a library and an instructional materials center at the Primary School. The lack of a library facility and an instructional materials center greatly restricts the efforts of the faculty to meet the varying needs of the children assigned to their respective classrooms.

From all that was observed at the several grade levels, it appeared that the potential for faculty study and analysis of the present mathematics program, up-grading of faculty knowledge in the newer mathematics, the development of newer and better sequential programs in mathematics, and the eventual implementation of a faculty developed mathematics program, is excellent.

Eloy South School. The faculty at the Eloy South School appeared to be highly dedicated to the challenge of meeting the educational and social needs of the children who attend this school.

There was considerable evidence that the four teachers, on an informal basis, worked closely together. There was also some evidence that these teachers were developing materials to supplement the selected text materials. One teacher in particular, had developed an interesting (ditto) series of supplementary materials in the area of mathematics. Effort was being expended to devise materials that would help in the challenging task of meeting the varying needs of the children. These teachers should be commended for this impressive effort.

There was a critical lacking in available conceptual aids to help children discover some of the basic properties of our number system. This particular school also lacked sufficient audio-visual equipment and provisions for blacking out each separate classroom.

There was no evidence of library materials or other related supplementary materials from which the teachers could draw appropriate mathematics materials to better meet the assorted abilities of the children.

Articulation in the area of mathematics between this school and the Primary School appeared to be non-existent. There seemed to be no system or organizational structure where the teachers of the Eloy South School could be involved in the overall curriculum development of a mathematics program on a district-wide basis.

Conclusions and Recommendations

The set of recommendations to follow reflect the judgment of the consultant assigned to study the mathematics program. These recommendations are based on observations, discussions with individual faculty members and several meetings with faculty groups from several of the elementary schools. No effort has been made to list the recommendations in any priority order. It is felt, however, that each recommendation listed should be given serious consideration.

1. The teaching of mathematics does not require much in the way of costly instructional equipment. It is essential, however, that certain minimal equipment be provided each teacher at each grade level. It is recommended, therefore, that each teacher be provided the following instructional equipment:
    a. Chalkboard compass
    b. Chalkboard protractor
    c. Magnetic compass
    d. Yardstick
    e. Geometric models
    f. Conceptual aids (e.g., Fractional Parts Charts, Number Lines, etc.)

    It is also suggested that certain items be ordered in sufficient quantities so that each child may be provided with a ruler, compass, and protractor when the nature of the mathematical instruction requires such equipment. This would represent a thirty cents expenditure per child. In terms of budget limitations, the above suggested instructional equipment could be purchased over an extended period of time.

2. As a means of up-grading those faculty members who are in need of such assistance in the area of mathematics, it is recommended that arrangements be made to hold at the Eloy School District a series of two courses in modern mathematics specifically designed for elementary school teachers. It is suggested that one course be designed for teachers who teach grades one, two, three and four

and that a second course be constructed to meet the needs of the fifth, sixth, seventh and eighth grade teachers.

It is strongly recommended that extreme care be exercised in the selection of the instructors. Instructors selected should have knowledge of boys and girls and the elementary curriculum. The instructors selected should have an awareness that the typical elementary school teacher possesses certain apprehensions and anxieties relative to the new mathematics. The selected instructors should also realize that the elementary school teacher is not trained as a mathematician and that good judgment needs to be exercised in beaming the instruction at a level compatible with training and existing knowledge. Finally, it is imperative that the instructors pace the instruction to the ability of the class members to comprehend and understand. It is important that every effort be made by the selected instructors to make the elementary teacher feel secure and competent in the new mathematics. Unless the courses can be fielded by instructors with these insights and feelings, it would be advisable to defer the offerings until such time that appropriate instructor personnel can be secured.

3. It is strongly urged that a District Mathematics Committee composed of carefully selected teachers from each grade level be established. It is essential that equitable representation from each school characterize the selection process. IT SHOULD BE THE RESPONSIBILITY OF THIS COMMITTEE TO DEVELOP A WRITTEN SET OF OBJECTIVES FOR THE MATHEMATICS CURRICULUM. FURTHERMORE, A SET OF OBJECTIVES SHOULD BE FORMULATED FOR EACH GRADE LEVEL. IT IS IMPORTANT THAT THE ESTABLISHED OBJECTIVES BE CONSISTENT WITH THE PHILOSOPHY AND OBJECTIVES OF THE SCHOOL DISTRICT. SUCH AN ENDEAVOR WILL CREATE A PREMISE THAT WILL SIGNIFICANTLY AID IN THE DEVELOPMENT OF A SEQUENTIAL MATHEMATICS PROGRAM FROM GRADES 1 THROUGH 8. THE CURRICULUM WILL THEN BECOME THE MEANS FOR ACHIEVING THE OBJECTIVES.

4. The principals and/or head teacher at each of the schools should be encouraged to appoint a committee concerned with matters of the curriculum. This would allow for faculty coordination and cooperation with the District Curriculum Committee and would facilitate articulation among the schools as a District mathematics program is developed. The establishment of a curriculum committee at each of the schools would also increase the potential for both vertical and horizontal articulation among teachers in the area of mathematics and would also increase the potential for continuing analysis, study, modification and improvement of the mathematics curriculum.

5. It is imperative that District level administration give established curriculum committees maximum support and organize a structural framework that would bring the District into a stage of development where the potential for a sound curriculum in mathematics can be realized.

6. It is strongly recommended that an appointed Mathematics Curriculum Committee and other carefully selected faculty members be given the

responsibility for the development of a sequential program in mathematics designed to meet the needs of the boys and girls who attend the District schools. Such an assignment can probably be most successfully accomplished during summer months under the direction of a qualified mathematics consultant. Teachers should be paid for their summer services adequate professional remuneration. It is neither realistic nor fair to assign such a responsibility to a selected faculty group during the school year. Sufficient time is not available to accomplish well such a curriculum development endeavor.

7. Once the curriculum has been developed by the Curriculum Committee, the resulting courses of study should be published and copies furnished each faculty member. This is the only sound approach for the development and design of a mathematics curriculum suitable for pupils of the Eloy Elementary School District. IF SUCH AN APPROACH IS NOT TAKEN, THE CURRICULUM IN MATHEMATICS THEN BECOMES THE ADOPTED TEXTBOOK. Such a situation or condition cannot be justified. Only when a curriculum is designed by a faculty can the needs peculiar to a given student population be met. Following page-by-page from the beginning to the end of an adopted textbook has little relationship to meeting the educational needs of boys and girls. The primary purpose of a mathematics textbook should be to function as a source book to aid both the teacher and children in meeting the requirements of the curriculum designed and constructed by the teachers for the children. The teachers and only the teachers know the amount of computational skill and proficiency needed by the children of a given classroom or school; certainly the author of a mathematics textbook cannot know the needs specific to a particular classroom situation.

   The potential for meeting the needs of boys and girls will only increase by the results of expended effort of the faculty to formulate a curriculum calculated to meet the requirements and abilities of Eloy pupils.

9. It is suggested that all available materials related to the new mathematics be secured and furnished each faculty member involved with the teaching of mathematics. Many of these materials may be obtained without cost from the several publishing companies concerned with the distribution of mathematics textbooks. Concentrated study of these materials by the faculty plus participation in a mathematics workshop or course designed for the staff's needs would place them in a favorable position, knowledge and attitude-wise, to successfully implement the essentials of an up-dated mathematics curriculum created by an appointed Curriculum Committee.

10. It is recommended that a series of in-service programs conducted within the District be designed to further acquaint the teachers with a total modern mathematics program. It is suggested that Mr. Leslie Jordan be appointed to assist in such an endeavor. A mode of operation of this nature will also help to facilitate articulation of the mathematics program. It is quite important

that the primary teacher have insight into the nature of the program at the intermediate and upper grade levels. It is equally important that the intermediate grade teachers have some knowledge of the primary and upper grade programs. It follows, that it is essential for the upper grade teachers to have a reasonable understanding of the primary and intermediate programs in mathematics. Peripheral insights related to the "other person's program" will give considerable impetus to an on-going articulation process.

11. It is suggested that the administration strongly consider the establishment of an instructional materials center at each school. These centers should house new materials, film strips, visual aids, supplementary textbooks, etc., in the area of elementary school mathematics. The establishment of a good instructional materials center at each school means that teachers would have available to them varying levels of materials to bring to the classroom situation. This suggests that a better job in meeting the individual needs of the boys and girls would be realized. Material centers would help to greatly improve the quality of instruction in those situations where internal classroom ability grouping exists. The expense in establishing a series of instructional materials centers is not small. It is suggested, however, that a modest beginning be made immediately and that funds be budgeted each year to increase the amount of pertinent materials particularly needed for the boys and girls attending Eloy District Elementary Schools.

12. It is recommended that thought be given to the possibility of District policy related to ability grouping. The mathematics curriculum committee should be allowed to study and analyze the possibilities and submit appropriate recommendations to the administration for further consideration. It is further suggested, that consideration be given to the establishment of special education classes for the less academically talented pupils. This program would remove from the standard classrooms those students who need a special curriculum and would allow the teacher to direct and plan instruction to a more restricted range of varying abilities. The relationship of ability grouping practice on a district-wide basis to the envisioned new program in mathematics brings together at one time two closely related factors associated with the success of a new and approved mathematics curriculum.

13. It is suggested that a planned program be established for the acquisition of suitable supplementary materials in this particular area of the curriculum for each of the grade levels. These supplementary materials in mathematics should be located in each instructional materials center and should be available for immediate use by both teacher and pupil. As indicated earlier in this particular series of recommendations, the time required to reach this important goal will be governed by funds appropriated for this purpose. Therefore, it is strongly urged that a significant portion of available funds be provided to meet this objective.

14. It is recommended that District level administration working in conjunction with the building principals and faculty, play a helpful and an encouraging supporting role in all matters that pertain to the curriculum. Such leadership will provide an organizational structure on a district basis that will facilitate improvement of the curriculum in an orderly manner.

15. Once the new upper grade school is in operation, it is suggested that departmentalization be considered in only those areas where competent faculty members are available. If the current faculty at the upper grade level lacks sufficient subject matter background in the several areas of the upper grade curriculum, it is suggested that a self-contained classroom organization be implemented initially. Depending on faculty competencies, the organization of the new school in the area of mathematics could range from a self-contained classroom approach, through a semi-departmentalized organization.

SUPPLEMENT A

A FIVES SYSTEM OF NUMERATION

Tens - System	Fives - System
1	1
2	2
3	3
4	4
5	10 (1 five and 0 ones)
6	11 (1 five and 1 one)
7	12 (1 five and 2 ones)
8	13 (1 five and 3 ones)
9	14 (1 five and 4 ones)
10	20 (2 fives and 0 ones)
11	21 (2 fives and 1 one)
12	22 (2 fives and 2 ones)
13	23 (2 fives and 3 ones)
14	24 (2 fives and 4 ones)
15	30 (3 fives and 0 ones)
16	31 (3 fives and 1 one)

CHANGING BASE - FIVE NUMERALS TO EQUIVALENT BASE - TEN NUMERALS	
31_{five} =	(3 x 5) + (1 x 1) = 16
40_{five} =	(4 x 5) + (0 x 1) = 20
112_{five} =	(1 x 25) + (1 x 5) + (2 x 1) = 32
404_{five} =	(4 x 25) + (0 x 5) + (4 x 1) = 104

SUPPLEMENT A

BASIC ADDITION FACTS - BASE-TEN TABLE

+	0	1	2	3	4	5	6	7	8	9
0	0	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
2	2	3	4	5	6	7	8	9	10	11
3	3	4	5	6	7	8	9	10	11	12
4	4	5	6	7	8	9	10	11	12	13
5	5	6	7	8	9	10	11	12	13	14
6	6	7	8	9	10	11	12	13	14	15
7	7	8	9	10	11	12	13	14	15	16
8	8	9	10	11	12	13	14	15	16	17
9	9	10	11	12	13	14	15	16	17	18

BASIC ADDITION FACTS - BASE-FIVE TABLE

+	0_{five}	1_{five}	2_{five}	3_{five}	4_{five}
0_{five}	0_{five}	1_{five}	2_{five}	3_{five}	4_{five}
1_{five}	1_{five}	2_{five}	3_{five}	4_{five}	10_{five}
2_{five}	2_{five}	3_{five}	4_{five}	10_{five}	11_{five}
3_{five}	3_{five}	4_{five}	10_{five}	11_{five}	12_{five}
4_{five}	4_{five}	10_{five}	11_{five}	12_{five}	13_{five}

SUPPLEMENT A

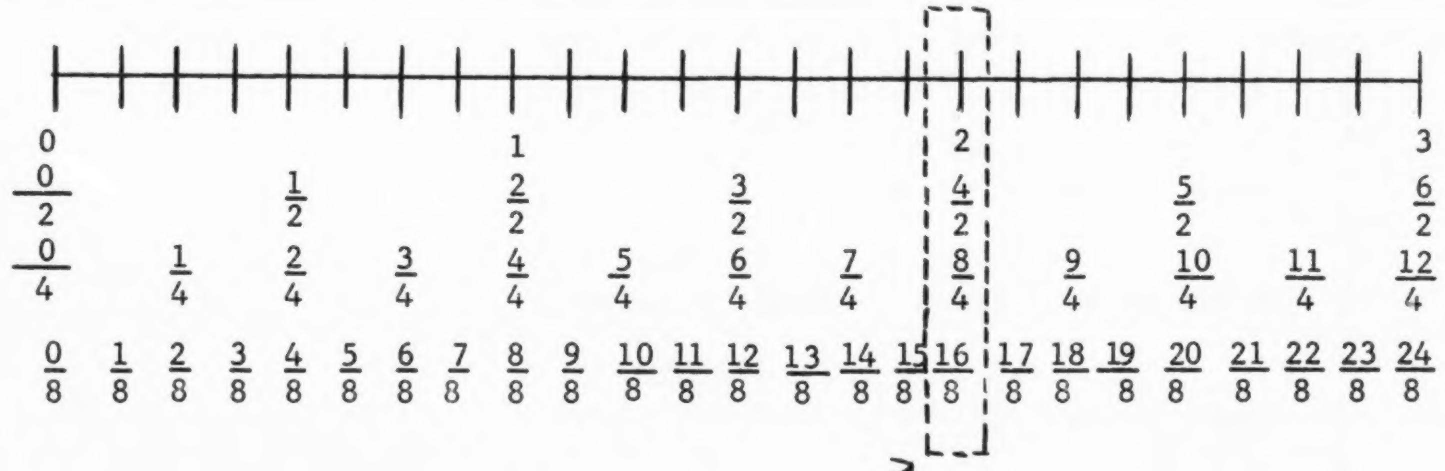
CHANGING BASE-TEN NUMERALS TO EQUIVALENT BASE-FIVE NUMERALS	
8 =	$1_{\text{five}} + 3_{\text{ones}} = 13_{\text{five}}$
11 =	$2_{\text{fives}} + 1_{\text{one}} = 21_{\text{five}}$
13 =	$2_{\text{fives}} + 3_{\text{ones}} = 23_{\text{five}}$
18 =	$3_{\text{fives}} + 3_{\text{ones}} = 33_{\text{five}}$
20 =	$4_{\text{fives}} + 0_{\text{ones}} = 40_{\text{five}}$
43 =	$1_{\text{twenty-five}} + 3_{\text{fives}} + 3_{\text{ones}} = 133_{\text{five}}$
62 =	$2_{\text{twenty-fives}} + 2_{\text{fives}} + 2_{\text{ones}} = 222_{\text{five}}$
597 =	$4_{\text{one hundred twenty-fives}} + 3_{\text{twenty-fives}} + 4_{\text{fives}} + 2_{\text{ones}} = 4342_{\text{five}}$

BASE-FIVE SYSTEM - ADDITION EXAMPLES	
1. $\begin{array}{r} 18 \\ +\underline{22} \\ 40 \end{array}$	$\begin{array}{l} 33_{\text{five}} \\ +\underline{42_{\text{five}}} \\ 130_{\text{five}} = (1 \times 25) + (3 \times 5) + (0 \times 1) = 40_{\text{ten}} \end{array}$
2. $\begin{array}{r} 26 \\ +\underline{88} \\ 114 \end{array}$	$\begin{array}{l} 101_{\text{five}} \\ +\underline{323_{\text{five}}} \\ 424_{\text{five}} = (4 \times 25) + (2 \times 5) + (4 \times 1) = 114_{\text{ten}} \end{array}$
3. $\begin{array}{r} 34 \\ +\underline{68} \\ 102 \end{array}$	$\begin{array}{l} 114_{\text{five}} \\ \underline{233_{\text{five}}} \\ 402_{\text{five}} = (4 \times 25) + (0 \times 5) + (2 \times 1) = 102_{\text{ten}} \end{array}$

SUPPLEMENT B

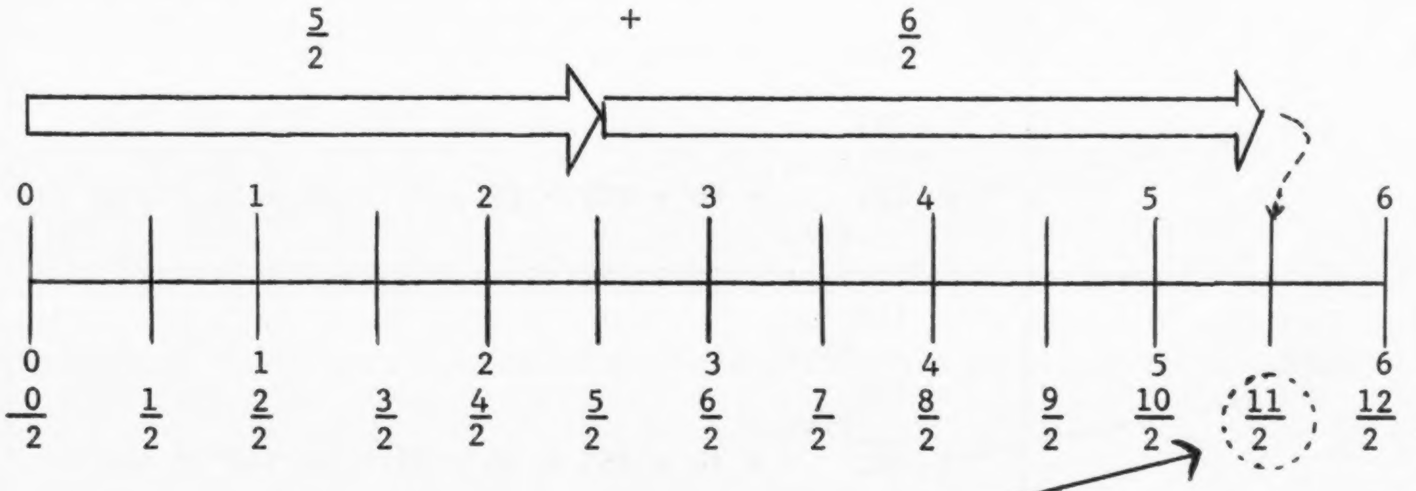
THE CONCEPT OF FRACTIONAL NUMBERS

FRACTIONAL PARTS CHART


0 1 2 3
0/2 1/2 2/2 3/2 4/2 5/2 6/2
0/4 1/4 2/4 3/4 4/4 5/4 6/4 7/4 8/4 9/4 10/4 11/4 12/4
0/8 1/8 2/8 3/8 4/8 5/8 6/8 7/8 8/8 9/8 10/8 11/8 12/8 13/8 14/8 15/8 16/8 17/8 18/8 19/8 20/8 21/8 22/8 23/8 24/8

Note: Different names for the same number

ADDITION OF FRACTIONS VIA THE NUMBER LINE

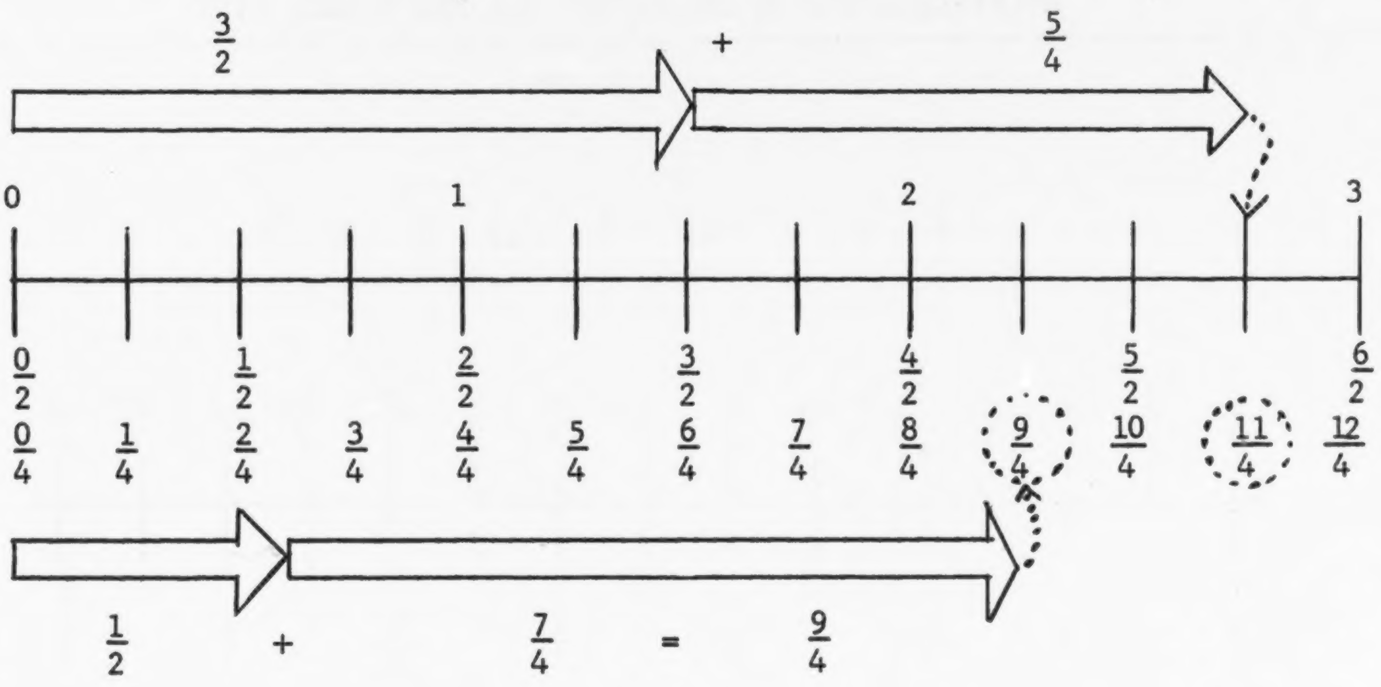

5/2 + 6/2
0 1 2 3 4 5 6
0/2 1/2 2/2 3/2 4/2 5/2 6/2 7/2 8/2 9/2 10/2 11/2 12/2

$\frac{5}{2} + \frac{6}{2} = \frac{11}{2}$

SUPPLEMENT B

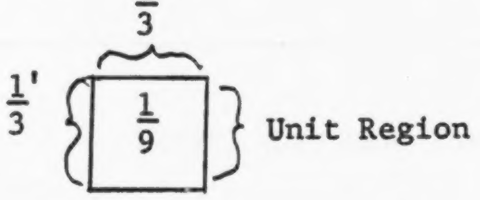
ADDING TWO FRACTIONS NOT EXPRESSED IN THE SAME SCALE

$\frac{3}{2} + \frac{5}{4} = \frac{11}{4}$

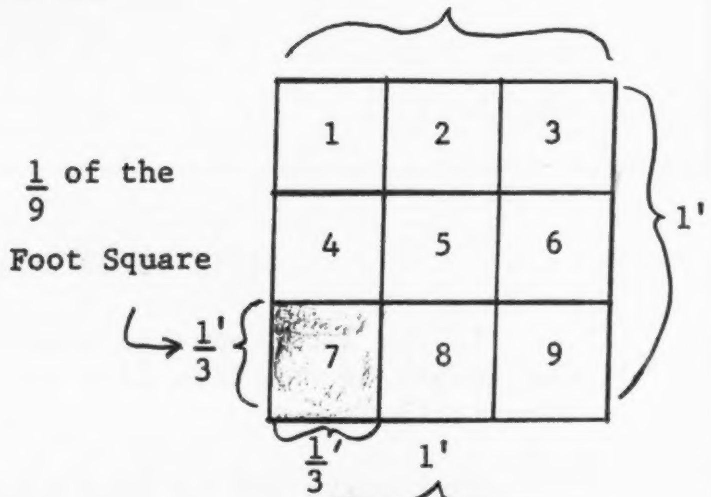

3/2
+
5/4
0
1
2
3
0/2 1/2 2/2 3/2 4/2 5/2 6/2
0/4 1/4 2/4 3/4 4/4 5/4 6/4 7/4 8/4 9/4 10/4 11/4 12/4
1/2
+
7/4
=
9/4

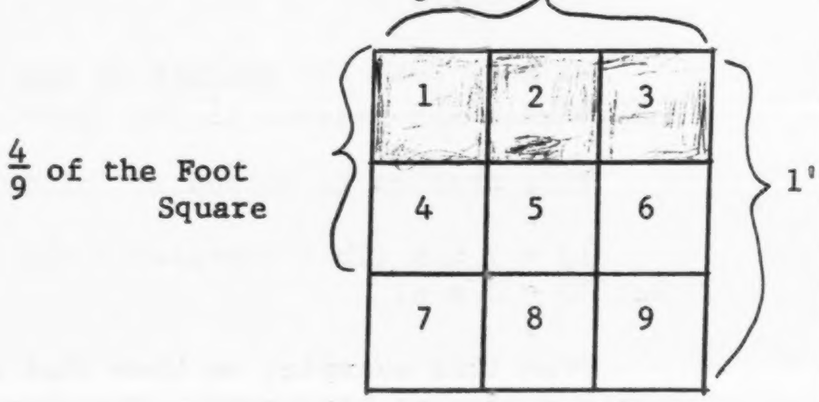
Multiplication of Fractions Through Areas of Rectangular Region
Interpretation of the Product

$\frac{1}{3}' \times \frac{1}{3}' = \frac{1}{9}$ of the Foot Square


1'/3
1'/3
1/9
Unit Region

It takes 9 unit Regions whose sides measure $\frac{1}{3}' \times \frac{1}{3}'$ to cover the area which has adjacent sides of 1' x 1'


1/9 of the Foot Square
1 2 3
4 5 6
7 8 9
1'
1'/3
1'/3

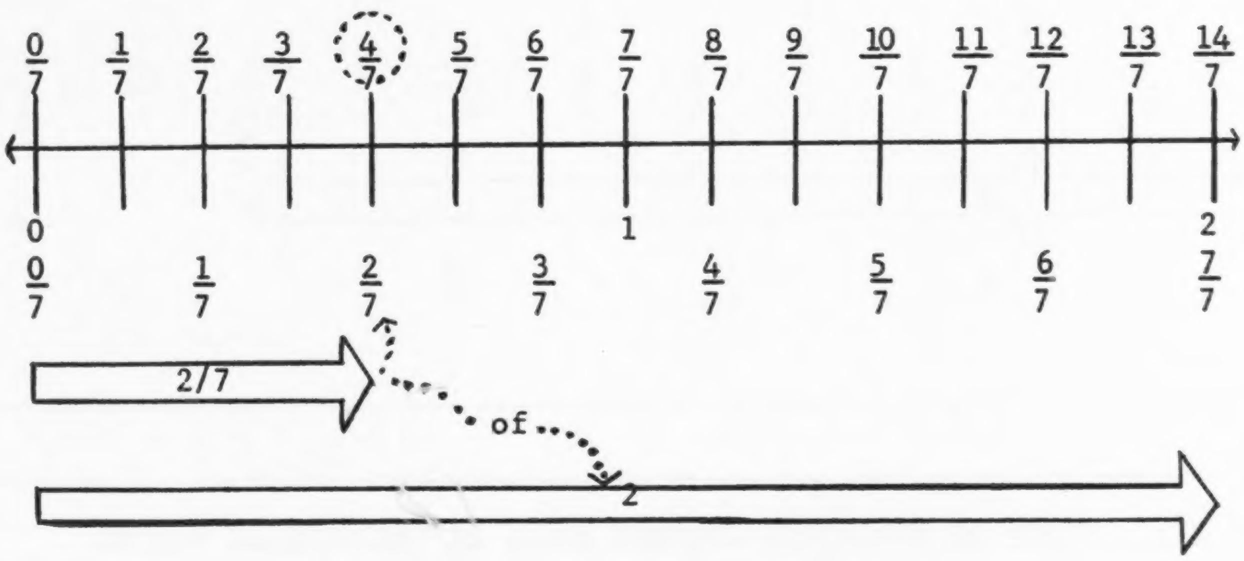

1'
4/9 of the Foot Square
1 2 3
4 5 6
7 8 9
1'

$\frac{1}{3}' \times \frac{4}{3}' = \frac{4}{9}$ of the Foot Square

SUPPLEMENT B

MULTIPLICATION OF FRACTIONS VIA THE NUMBER LINE

$$\frac{2}{7} \times 2 \quad \text{or} \quad \frac{2}{7} \text{ of } 2 = \frac{4}{7}$$



DIVISION OF FRACTIONS - WHY DOES ONE INVERT

If you know that the area of a rectangular flower bed is 10 sq. ft. and the length of one side is 2 ft., can you decide what the length of an adjacent side is (5 ft.)

What operation is used to solve this problem? (Division)

We know that the measure of one side times the measure of an adjacent side equals the measure of the region.

This problem is solved as follows:

10 = 2 x n (This represents the operation of division) - (10 ÷ 2 = n, means that 10 = 2 x n).

From this example, we know that a whole number can be substituted for n to obtain a correct statement. The operation used for obtaining this number is

SUPPLEMENT B

called division. Now let us extend the operation of division to fractional numbers.

We agree that 2/7 ÷ 4/9 = n means that 2/7 = 4/9 x n or that 5/8 ÷ 3/4 = n means that 5/8 = 3/4 x n.

In essence, we have invented an operation of DIVISION for all fractional numbers. We shall see if a fractional number can always be substituted for n to give a correct statement. For example -

$$\frac{1}{4} \div \frac{1}{2} = n \quad (\frac{1}{4} \times \overset{\swarrow \text{invert}}{2/1} = \frac{2}{4} \text{ or } \frac{1}{2})$$

Step (a) 1/4 ÷ 1/2 = n, means that 1/4 = 1/2 x n

Step (b)* If 1/4 = 1/2 x n, then 4/1 x 1/4 = 4/1 x (1/2 x n)

Step (c) 4/1 x 1/4 = 1, therefore, 1 = (4/1 x 1/2) x n

Step (d) 1 = 4/2 x n

Step (e) 1 = 2 x n What fraction in the blank n will make 1 = 2 x n a correct statement? (Ans. 1/2)

1 = 2 x 1/2

1 = 2/2

1 = 1

---

*You can see that we multiply both sides by 4 which is the reciprocal of 1/4. We do this to obtain one on the left side of the equation. We know that we can obtain one because the product of reciprocals is always one.

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SCIENCE

Point of View

Science Today. Science influences the lives of everyone on earth today. The extent to which this is true depends upon the society in which we live. The extent of our awareness of this influence depends directly upon the level of our intellectual development. The jungle native is no longer isolated from modern science. He may be frightened by the roar of a giant jet aircraft or rocket, or look with awe and superstition upon the vapor trails left by such craft. His health may be affected by air, stream, or food contamination left by some modern scientific invention or discovery. Since no one can escape completely the influences of present day science, it becomes imperative that everyone acquire a good basic understanding of it. The impact of science upon our society can quite well be judged by noting the increased number of topics included in current science textbooks and science literature that were not contained in such publications a decade or two ago. Science can no longer be treated adequately as a few health topics, or mentioned only incidentally with social studies. To be regarded as scientifically literate today our elementary school teachers and pupils need knowledge and understanding of the latest techniques employed in: collecting and dispersing weather information; conducting plant and animal growth studies; discovery and recovery of mineral resources; modern communications; modern transportation and space travel; celestial orientation; recovery and use of new energy resources from atoms; developing new atomic and molecular concepts of matter, to mention but a few of the newer topics that have emerged in science.

Concurrent with this rapid expansion in science content has evolved a marked increase of interest in, and importance of, science in the elementary schools. Today science has earned and rightfully deserves a distinct and prominent place in the elementary school curriculum.

Science and Scientific Method. Scientific knowledge differs from certain other kinds of knowledge in a most important respect. That is, it is dependable, for it is based upon facts and logical conclusions. Scientific knowledge is discovered by an orderly and systematic method known as the Scientific Method. Elementary school science programs can and should help young people to recognize this difference in knowledge, and to gain not only a knowledge of the scientific method but to acquire some facility in its use. The scientific Method has quite properly been referred to as one of problem solving. To teach science as problem solving children must be involved in the process. They must be encouraged to question, to reason, and to think for themselves. As they do, science will assume real and lasting meaning. Teachers can give children science ideas which they may be expected to understand, although each child comes to understand an idea in his own way. The teacher's job is to set the stage for learning to take place and to direct the process once it is begun.

Current Studies. Today a variety of elementary school science studies are in progress in a number of different schools across the nation. One such study is concerned with ability and interest grouping of pupils in science, usually within the classroom. Another variation in these studies is the non-graded program which provides for pupils to progress on a non-graded basis in science, mathematics, arts and crafts and music, while they progress on a grade-level basis in grades three through six and grades seven and eight in English, social studies 'core' and in physical education. Team teaching is being tried in another study in elementary science. In this plan the teacher best qualified in a particular area of science is chosen to direct the learning. The strengths and resources of several teachers are thereby made available to more pupils rather than restricting them to one teacher. Still another study in elementary school science is concerned with discovering what scientific topics are most appropriate for elementary schools. Astronomy is being used as a basis for teaching inter-disciplinary fields in science such as mathematics, physics and chemistry. The Minnimast study attempts to correlate science and mathematics curricula for kindergarten through grade nine.

While these are but a few examples of current studies being conducted in elementary school science, they serve to illustrate the diversity of these studies and to point out the interest being shown in attempting to improve the quality of the elementary school science program. It is further significant to note the change in emphasis from that of memorization of subject matter to one of development of skills needed in discovering new scientific knowledge. Quantization and individualization are key terms being used to describe the newer approaches in elementary school science. More attention is being given to the "how" and "how much" type of questions than to the "what" and "when" type.

Evaluation Criteria. Fundamental to any kind of meaningful evaluation of an elementary school science program are certain basic criteria. The following criteria appear to be in accord with current studies and consistent with well recognized elementary school science programs, therefore they have been accepted as basic guides in evaluating the Eloy Elementary School District's science program. A good elementary school science program should:

1. Be aimed at developing an attitude of inquiry and to encourage its use in other subjects.

2. Consist of activities designed to provide for individual differences of pupils relative to performance skills and learning abilities.

3. Include basic and current science materials, and be presented in sequential order consistent with pupil maturity.

4. Recognize and apply present-day knowledge of behavioral patterns and growth processes of children.

5. Allot sufficient time for studying science.

6. Provide appropriate facilities for learning situations.

7. Possess a sufficient number of adequately prepared teachers.

Observations and Commendations

The administration and faculty at all branches of the Eloy Elementary

School System were friendly, cooperative, sincere and devoted. Both appeared anxious and receptive to suggestions for instructional procedures which would help to improve their science program. With few exceptions these most commendable traits and efforts were being thwarted by such tangible factors as: poor and inadequate physical plant facilities, lack of or scant evidence of science equipment, and insufficient intra-system teacher planning and coordination in science. South and Central Schools appeared to have much the more critical physical plant and equipment needs. Discipline problems were more evident at both of these schools. New school buildings close by were nearing completion. They gave assurance of considerable improvement in the physical plant of these schools. The buildings at the new school site were attractive, substantial, and quite functional.

As the upper grades move into the new school, congestion in the class rooms and around the grounds will be greatly alleviated at Central School.

Adjustments in the environmental aspects of the school should tend to improve the learning potential of this school system. Such academic improvements as greater pupil pride in the care of school property and a more positive attitude toward learning, together with increased teacher contentment and satisfaction, could be expected to follow as natural consequences of these changes.

Class schedules for all grades at Central School were disrupted for an entire day while a film on "Desert Survival" was shown. Neither the teachers nor the pupils had had any advance notice or information about the film. A carnival type atmosphere prevailed. Some teachers appeared slightly disturbed by the film intrusion on class time. While the film contained some good science material, the learning value of a film shown under such impromptu circumstances is questionable.

Science clearly was not a favorite subject for most teachers at Central School. However, three men teachers stood out as definite exceptions. For them science was semi-departmentalized. That is, each of these teachers taught two to three, but not all, of the science classes at his grade level. Each of these teachers was doing a creditable job of teaching science, considering physical facility limitations under which each was working.

The latest State-adopted science textbooks were being used in all grades, four through eight, at Central School. Two teachers in the seventh grade were using a different science text than were the other teachers. This, however, did not appear to present a serious problem. Most of the teachers were pleased with their science books. Supplementary science textbooks, science story books, and periodicals were virtually non-existent in the classrooms at this school. There were some of these types of books and reference materials in the library. Unfortunately library use time was restricted to one period per week. All of the classrooms at Central School had a set of encyclopedias, appropriate for science reference work. The later editions were found in the upper grade rooms.

Time allotment for science varied considerably, although in general it was adequate. Of more serious concern was the manner in which the science period was used. Except for the few cases, already commended, the science period too often was utilized as a reading exercise from the science textbook. Science activities and special science reports, for the most part, were non-existent.

The library at Central School was small and insufficiently supplied with good science reference materials. Its efficiency had recently been further restricted by the occupancy of it's reading room by a special education class. Books were not well marked on the shelves to facilitate location and use. Too many science books were in the library that could better have been placed in the classrooms on a temporary use basis. Expanded library facilities at the new school should correct the space needs of the library. Still to be increased, though, are much needed science periodicals and reference materials.

Science textbooks, science story books, and simple science equipment were all most critically needed at South School. Two teachers told the observer that they had no science textbooks. A third teacher was using an old science text. Science experiences for children in this school appeared quite limited.

Buildings at this school were adequate in size and the school grounds were well enclosed. Classrooms were adequately lighted, though bleak and not well kept. Classrooms could not be darkened for the showing of films and film strips, however an adjacent assembly room could be used for that purpose. A movie projector and screen were observed in the assembly room.

The buildings at the Primary School were conveniently spaced, of recent and durable construction, and well kept. Rooms were of good size, well lighted and had ample chalk and bulletin board space. Teachers and pupils alike appeared to take pride in keeping orderly and attractive rooms. The latest State-adopted science textbooks were found in each classroom, although in one instance the science textbooks were noticed stacked on the shelf as though they were not frequently used. The Weekly Reader furnished the only current science information. The third grade rooms each contained one, and some two, sets of current and appropriate encyclopedias. Very few science story books were observed in any of the classrooms. Science visual aids and projects were especially scarce. A few potted house plants were observed in some rooms; however, no use was made of them for science learning. Several good science film strips were available in the principal's office. Science work tables and storage space were quite limited, although the room size would permit such usage.

The two most disturbing aspects of the science program in the Primary School were (1) inconsistent and insufficient time allotted for science in the daily schedule, and (2) the limitation of the science lesson primarily to a reading exercise from the science textbook. Science activities such as demonstrations, projects, experiments, field studies, and special science reports received very little to no attention.

As was previously mentioned, there was virtually no evidence of any planning and coordination among any of the science teachers in the entire elementary school system. This autonomy among the science teachers, in conjunction with a relatively high incidence of substitute and new teachers in the system, contributed significantly to the weakening of the entire science program.

Conclusions and Recommendations

Based upon the forgoing point of view, critical observations, and analysis of the science program in the three elementary schools of Eloy School District several conclusions and recommendations were developed. They are offered with a firm conviction that, if conscientiously executed, they will distinctively enhance the quality of science education in the Eloy Elementary Schools. An attempt has been made to rank these recommendations according to order of importance, urgency, and feasibility from highest to least priority. It is admitted that, in some cases, the ranking order is somewhat arbitrary.

In-Service Training. That the teacher is the most influential person in the lives of young people in determining their likes or dislikes for a particular school subject, most people would agree. The problem of selecting well qualified teachers and of helping them to remain so is paramount. The responsibility of this two-fold task rests squarely with the administration and school board of each school system. Teachers have already been selected; some of them are potentially very fine science teachers, others find science teaching quite a bore or are frightened because they lack understanding in this field. Good teachers, who have interests and talents in other areas than science, should be retained. However, they should be re-assigned to duty where they can serve the school more efficiently and will in turn be happier in their work. The good science teacher's education is never complete, for in a rapidly changing scientific world, such as ours, he needs to continually strive to keep abreast of the many changes that are constantly taking place. Even the better science teachers need help and encouragement in finding solutions to some of their classroom problems. Nearly every teacher with whom the observer talked expressed a need and a desire for some in-service instruction in science. Such instruction could quite practically be brought to Eloy in the form of an in-service extension course. Such a course should be demonstration-centered and enriched with science ideas. The teachers would need to be involved in the demonstrations also, so as to gain manipulative skills and to develop self-confidence. Much science can be taught without expensive equipment if the teachers have the right ideas and understandings. This type of course should prove particularly beneficial to the newer teachers and to those who have recently returned to teaching. Therefore, an in-service extension course in science for teachers is recommended. The course could be taught in Eloy. Teachers could be encouraged to participate in such a course by offering them salary schedule inducements, if feasible, especially for work taken in science

Supplementary Science Textbooks. While most of the teachers were not too displeased with their science textbook, several of them spoke critically of it; some disliked it. One significant criticism directed at the science series textbook, which was in use in the Eloy School: it "appears to be written for the large city school systems which have ample science laboratory equipment". The observer would have to agree, in part, with this criticism. Still a science teacher with some ingenuity and originality could make appropriate equipment substitutions for certain equipment shortages. Another apparently justifiable criticism of this science textbook had to do with the omission of important science topics. The only defense the observer can offer for the text in this regard is that no science textbook can be expected to treat all important science topics thoroughly today. It is recognized that everyone can not be equally well pleased with the same textbook. Still it should be remembered that many well-qualified science teachers and supervisors spent considerable time and effort in selecting these three basic science series before recommending them for State adoption. It is felt therefore that each science series has some merit. One of the strong points in favor of adopting the same science series throughout the same system is that it helps to maintain scope and sequence to topics treated in science. It is recommended that teacher's guides for the other two science series be obtained, so that each science teacher may have a copy of all three basic, State-adopted science texts. Beginning teachers and those returning to teaching will appreciate and profit by having these supplementary science source materials made available to them.

Central Science Equipment Room. A better job of teaching science can be done with some simple pieces of science equipment. Needless duplication of equipment is to be avoided in the interest of economy. It is recommended that a central science equipment room be established, perhaps at the New Eloy Elementary School, in which science materials may be kept and from which science material may be dispensed to each of the other elementary schools upon request. It is further recommended that each elementary school set up its own distribution center for science materials. The central science stock room, as well as the local distribution centers, should provide for ample storage and ready accessibility to all science teachers at all time without causing any class interruptions. One science laboratory table-cart, (see supplement A.) is recommended for each grade level four, five, and six. It is also recommended that a tote-tray be provided for each grade, one through three, at each school for the purpose of dispensing science materials as requested. Both the laboratory carts and the science tote-trays should be kept in the central or local science distribution center when not in use, to lessen the possibility of one teacher monopolizing them. The portable laboratory table-carts chould quite possibly be made most economically, locally. They should contain: bottle gas, water tanks (for those rooms without running water) and catch basins, electrical outlets, extension cord, horizontal and vertical support rods. The seventh and eighth grades science needs should be met by use of a special science room in which laboratory equipment would be available. These portable laboratory carts and self-stocked science tote-trays are considered to be more functional and less expensive than individual science kits which are on the market today.

Work Tables and Window Shelves. Noting the lack of work table space and window shelves in a number of the rooms, it is recommended that a minimum of two flat-top tables, two by six feet, and 24 to 28 inches be provided in each room. Tablet-arm chairs or sloping top desks are not suitable kinds of surfaces on which to do science projects. It is further recommended that inside window shelves, one foot wide, be provided wherever practical. These shelves could be used for plant growth studies, and for storage of other projects. Growth studies should not be limited to the primary grades.

Supplementary and Current Science Reading Racks. New, important and interesting changes are taking place in science daily. Science textbooks cannot keep pace with all of these changes. For these reasons, it is clear that a textbook-only presentation of science is insufficient. It is recommended that a bookshelf and magazine rack be placed in each of the intermediate and upper grade rooms, and that these be kept re-stocked periodically with science story books and current science magazines. These current science reference materials might be obtained by way of a classroom representative or through a mobile library cart from the school library. This system, in effect, would extend the potential use-time of the library.

Departmentalization and Team Teaching in Science. Departmentalization of science in the seventh and eighth grades is recommended. Either one teacher could teach all of the seventh and eighth grade science or two teachers could be used with one teacher teaching all of the science on each grade level. This teacher or teachers should be one with the strongest professional experience in science and one who has the most enthusiasm for teaching science.

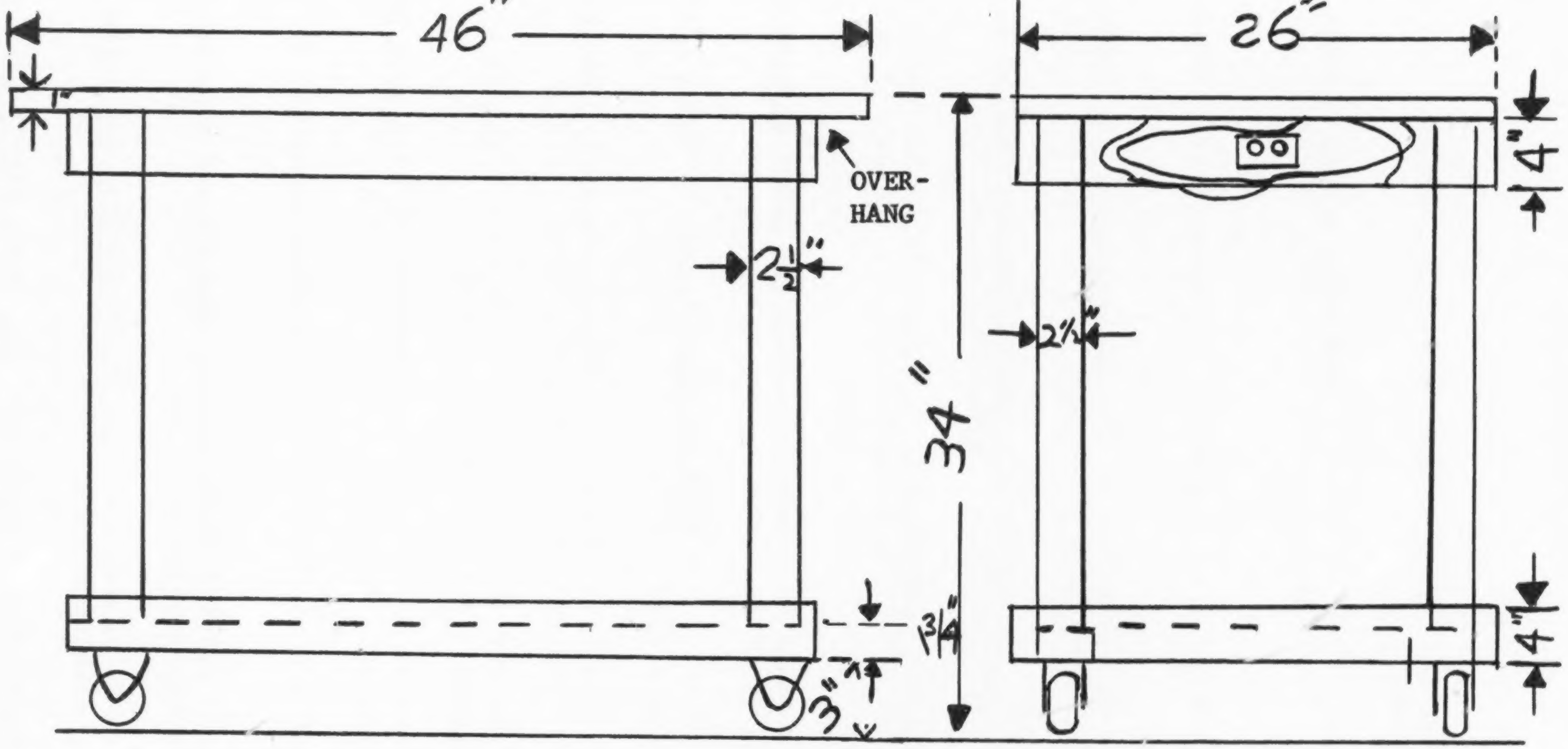
Detroit has had a completely departmentalized science program since 1920. Here, science is still taught in grade four and above by science specialists, and in specialized science rooms. It is felt that at least a semi-departmentalization plan in science is feasible for Eloy schools. In this regard the following recommendations are made: As teacher vacancies arise, consideration be given to filling them with elementary school science specialists. An alternate plan would be a type of semi-departmentalization for science in grades four, five, and six in which team-teaching could be practiced. The more capable science teacher could team with one, two or more other teachers and "trade" science teaching assignments for some other subjects such as social studies, arithmetic or reading. These changes should be made by the administration after due consideration and not left to impromptu switching among teachers of assigned duties. With proper care being exercised in the choice of these team-teacher combinations both students and teachers would stand to gain in the exchange of duties. Specialists teaching special classes appear to work well for music, art, and reading. It is time to experiment some with science and other classes. This plan could lead to more uniform time allottment for science in the intermediate grades. The following amounts of time for science in all grades is strongly recommended:

Grades	Minutes per Period
1 - 2 - 3	20-daily
4 - 5 - 6	30-daily
7 - 8	45-daily

This schedule should be followed throughout the full year.

In final conclusion it is significant to note that elementary school science has emerged as a distinct area of study and is being increasingly viewed as a necessary part of every child's general education. The most important ingredients needed for a good science program in our elementary schools today to effectively meet the demands of a highly technical and scientific world are: sufficient time allotted for science teaching; specially prepared science teachers who are enthusiastic about teaching science; some simple laboratory equipment; and sufficient available current science reference materials.

PORTABLE SCIENCE LABORATORY TABLE


46"
1"
OVER-HANG
2½"
34"
3/4"
3"
26"
4"
2¼"
4"

3/4" Plywood top and shelf - top covered with formica
3" x 1¼" Rubber wheels. (2 swivel; 2 fixed).
2" x 4" Leg braces.
1" x 4" Rails - top and bottom.
25' Electric extension for table outlets

SUPPLEMENT C.

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ART EDUCATION

Point of View

The art program in the elementary school has been structured and designed around several fundamental concepts concerning child growth through art. Such art programs have been characterized by the following commitments:

1. Visual art expression is for all children.
2. Visual art expression promotes the development of the individual.
3. Visual art expression promotes the development of visual sensitivity and perceptual literacy.
4. Visual art expression is a major integrative activity in the curriculum.

An art program growing out of these concepts places emphasis on visual art expression as an active part of the child's life. In art education special emphasis is placed on child experience, on imaginative, creative activity, on growing control over materials, on the activation of knowledge through process, and on the understanding of children as individuals.

In order to implement these concepts three kinds of activities are effective:

1. Learning activities focusing on the nature of art.
2. Learning activities focusing on self direction in art.
3. Learning activities focusing on the integration of art with other subject areas.

The first group of activities involves specific art experiences. Their aim is to increase visual awareness, to develop creative art behavior, to explore art media and to begin making and understanding aesthetic judgments. These experiences should be designed so that flexible but regular amounts of time are planned in the total curriculum.

The second group of art experiences are those that take place when children voluntarily engage in art activity. An art working corner of the classroom or a place where materials are readily available and may be used at the child's desk, are effective when utilized in implementing these activities.

The third group of activities takes place in relation to other areas of the curriculum such as reading, music, science and so on. Inasmuch as the subject matter of art is the broad base of man and his environment, it is possible (and desirable) that subject matter for art experiences will come from every phase of the curriculum.

Children will use, at times, what they are learning in other areas of the educational program as ideas for art expression. Nevertheless, it is essential to remember that art expression is a unique form of human communication and learning and, therefore, it must not become merely representative or factual just because it can be correlated with other subjects. In planning with children, especially during the elementary school years, it is essential that sincere approaches based on individual needs be used in preference to sterotyped means and extraneous devices.

Art education in the elementary school focuses on the ultimate development of independent thinking, imaginative and perceptually aware adults prepared to contribute to a dynamic society.

Observations and Commendations

The Eloy Elementary Schools demonstrated the potential for an effective art program. Interest was expressed by many elementary teachers in the structuring of a meaningful art program. Many teachers showed in their use of child art expression in their classrooms an enthusiasm for the concept of child growth through art.

At the time of the survey visitation there was no art teacher in the elementary schools. Additionally, since there was no qualified art teacher there was no physical space for an art room. Because of the tremendous demands on the time of the classroom teacher there was little evidence of an integrated relationship between art activity and other areas of learning in the self-contained classroom. Furthermore there was no structured overall art program having scope and sequence from the primary grades to the upper elementary grades. While some individual teachers demonstrated an understanding and sympathy for a contemporary art program, most of these activities were centered only in the primary grades. For all intents and purposes there were very few planned and significant art experiences in the upper elementary grades.

However, the interest expressed by teachers at all levels in the need for an art program was indicative of the real possibilities for establishing such a program.

Conclusions and Recommendations

The following recommendations are directed toward helping in the establishment of an art program that will become a series of related experiences which may guide children in the direction of learning through art.

1. It is important that a flexible program designed around the scope and sequence in art be developed. If art experiences are to be meaningful for children in the total educational program, and if fragmentation is to be avoided a program should be structured to cover all the elementary grades.

2. The administration should plan, in conference with the faculty, a series of meetings fixing the responsibility for the organization of the art program.

3. Consideration should be given for the appointment of a qualified full-time art teacher. This art teacher would function both as a consultant in the lower elementary grades and as an art teacher in the upper elementary grades.

4. Where the employment of an art teacher is not possible, an interested teacher, and there are several in the district, should be selected with half-time or quarter-time duties directed toward the organization and implementation of an art program.

5. Where this (No.4 above) is not possible, a group of teachers who exhibit interest in an art program might constitute an art committee that would be responsible for the beginnings of a program. Time should be allocated for these responsibilities.

6. Workshops either short term or of longer time duration, stressing the contemporary functions of art education, should be organized and provided for the staff.

7. Staff members should be encouraged to extend their knowledges of art education by enrolling in university art education classes, many of which are offered in the summer sessions.

Art is no longer, at least in the elementary school, a special subject area. If it is to take its place in the integrated curriculum then it must be an active part of that program. Such a program will only be successful for the children when it is based on long range planning and a sound educational philosophy.

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ART EDUCATION

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MUSIC EDUCATION

Point of View

The love of music is innate in every child; however, the growth and extension of this inherent feeling for music is the responsibility of the music specialist and the classroom teacher. Only through their personal concern and the affirmative use of music in the educational process can we be assured that music will truly make a contribution to the over-all growth of each and every child.

Music education in the elementary schools today is under more careful observation with more intensified thinking by more interested educators than ever before in history. Undoubtedly, the expanding role of the Federal Government in making available the funds for the improvement of certain aspects of music education in the schools has been one of the most instrumental forces for improvement in this important area of the curriculum.

Administrators, music specialists and classroom teachers must first consider the following questions:

1. What will be the role of music in the lives of the children we are now educating?

2. What will be the nature of music education in the over-all general educational program and what is its relationship to other areas of the curriculum?

3. What will be the responsibility of those who use music as an educational tool to insure that music will make its rightful contribution in the educational process?

4. How can this music education program best be administered in order that the needs of all children will be met?

Individual and cooperative thinking by the educators in a school district should focus attention on reform where necessary, but at the same time should exercise caution in abandoning the facets of their present music program which have proved to be educationally worthwhile.

Through the careful evaluation of any presently designed music program, undoubtedly some new objectives in music education will emerge, but more important, communication which must exist as a pre-requisite will be established. Incorporating what may be new in materials and methods of teaching music; building on the positive aspects of the present music program; and developing instruments to measure to what degree we are achieving the goals set up can only be successful if the efforts of all concerned people are united.

Observations and Commendations

Eloy Central School. The only elementary school within the district which had scheduled music classes taught by a special music teacher was the Eloy Central School. The 4th, 5th and 6th grades had music instruction twice a week for 30 minute periods; the 7th and 8th grade classes had music instruction once a week for a period of 40 minutes. Each classroom came to the music room separately with the exception of two 4th grades which came together and two 5th grades which were scheduled together. The music room was very adequate in size with movable chairs; there was adequate bulletin board space available, and the piano and phonograph were in good condition. However, it was noted that there was a lack of stimulating displays and there was an uninteresting atmosphere for music education to take place. There were no resonator bells nor autoharp; however, some very nice bongo drums and rhythm instruments were available but not used as a part of the music activities. There were adequate numbers of well selected texts for all grade levels in this particular school, as well as a number of recordings for music appreciation. Some of these, however, were old and were not in usable condition.

The music teacher played the piano very well and the singing quality of the students was exceptionally good as was their behavior in the classes observed. Inquiry revealed that the basic music program for the past several years had been concerned mainly with upgrading the singing quality of the students.

There were no special choruses or small groups scheduled either before or after school. A Christmas program had been regularly scheduled each year in which approximately 50 of the best singers were chosen to present the program. The music teacher had given students in the 6th, 7th and 8th grades experiences in copying music from printed scores, and several times during the year tests were administered to measure achievement in learning music fundamentals. A study of instruments was also a unit which was tested. The music teacher had presented several stories and the music of several selected operas and the students in the upper grades had shown considerable interest in this activity.

The instrumental instruction was given by the high school music teacher. Students from the Eloy Central School began instruction at the fourth grade level and classes for all instrumental students, grades 4 through 8 were held twice a week for a period of 45 minutes each. As there was no available room within the Eloy Central School for this instruction, the Lions Club room which was within a block of the Eloy Central School was being used. Consequently, there were no facilities for storage and there apparently was some difficulty being encountered in having some students released from their individual classrooms to attend the instrumental instruction periods. The instruments were all student owned with the exception of the percussion instruments. Inquiry revealed that an apparent lack of parental interest in purchasing instruments had decreased the size of the band during the past several years. Several community programs had been scheduled during the year, but student interest in participation had been lacking.

The amount of money budgeted each year for music materials for both the instrumental and vocal programs were not known by either instructor. There appeared to be little communication between the two music teachers and little communication between the administration and the music teachers.

Eloy Primary School. The teacher background in music training was in very good ratio to the number of classrooms in this building. It was revealed that six of the classroom teachers had either a degree in music or considerable experience and training. There were two phonographs in the building and one piano which was located in one of the 2nd grade rooms. The teacher's lounge contained the resource supply of music materials, such as recordings, rhythm instruments and an assortment of supplementary texts. These were few in number. Several classes that were visited were thoroughly enjoying the music activites which were initiated by the classroom teacher. Most of the classrooms in grades 2 and 3 lacked the basic music text in sufficient number for the children to use. However, a book count on the district inventory showed a more than adequate number of books for music at these grade levels.

Eloy South School. There appeared to be a very positive attitude toward the place of music in the primary grades by the classroom teachers in this building. An assembly was held once a week in a multi-purpose room where the piano was located. The room itself was large, but inadequately kept as far as janitorial services were concerned. The size of the room would be ideal for assembly sings, folk dancing and the many activities which lend themselves to a fine elementary music program.

Several of the teachers in this particular school were involved with after school activities of the Girl Scout organization. A song book had been prepared and a very enthusiastic attitude toward music activities in the lives of these youngsters was in evidence. The resource center had very few phonograph records and little exciting material which would encourage the classroom teacher to more effectively introduce music activities into the every day living of the classroom.

Conclusions and Recommendations

At present, the indications are that the present vocal music teacher in the Eloy Central School will be moving to the new upper grade school with the responsibility for teaching general music in the 6th, 7th and 8th grades which will be housed in the new building. Therefor, the immediate need is to employ a music teacher who will be responsible for teaching music classes at the 3rd, 4th and 5th grade levels at both the Eloy Central School and the Eloy Primary School.

It is recommended that he (or she) be scheduled at each of these two schools which will have grades 1 through 5 two days per week. His direct responsibility at each of these two schools will be teaching music to the 3rd, 4th and 5th grades; however, it is hoped that his presence in each of these two buildings and the opportunities for communication with teachers in grades 1 and 2 will result in cooperative planning between the classroom teachers of these grade levels and the music teacher. It is recommended that the music teacher alternate Friday mornings in the Eloy Central and the Eloy Primary Schools. During the time he is scheduled at each of the schools, he would have opportunities to give group instruction to the 1st and 2nd grade students who will be accompanied by their teachers to the music room. Participation by the students and their teachers in singing, simple folk dances, rhythm orientation, dramatization and other music activities which they have experienced in their individual classrooms will take on new dimensions by providing opportunities for group participation.

It is further recommended that on Friday afternoon of each week, this same music teacher be scheduled at the Eloy South School, where again he will have opportunities to provide help and leadership to the teachers who will be working with the pre-school age youngsters. At this particular school, the multipurpose room will be ideal for assembly singing and the music activities which are such an important part of the total "Headstart" program.

The scheduling of the present instrumental program in grades 4 through 8 will need immediate revision, according to the time allotment which the instrumental instructor now has. However, under no circumstances should the instrumental program of the Eloy Central and the Eloy Primary Schools be deleted, even for a short period of time. If the present amount of time in the instrumental instructor's schedule cannot be immediately increased, it is recommended that serious consideration be given to the hiring of a full time instrumental instructor who, like the vocal music teacher, would alternate his time between the Eloy Primary, the Eloy Central and the new upper grade school. With the alternate day scheduling which would be provided in the vocal music teacher's schedule, there would appear to be no reason why the music rooms at both Eloy Primary and Eloy Central could not also be used for the instrumental instruction. This would eliminate having to use the Lions Club building which is presently being used for instrumental instruction at the Eloy Central School. With adequate storage facilities in both music rooms at these two schools, many of the problems for storage of equipment and instruments would be eliminated. It is assumed that a definite room will be assigned for instrumental instruction at the new upper grade school. It would be impossible to share the vocal music room at this particular school because of full time scheduling of classes in the 6th, 7th and 8th grades for general music.

Inasmuch as it is impossible to achieve the ultimate in a Music Program without careful thought and evaluation by the administration, music teachers and classroom teachers within a school district, a three year MUSIC IMPROVEMENT PLAN is recommended which would, it is hoped, give consideration to this suggested pattern.

A. First Year

1. The appointment of one or several interested classroom teachers from Central, the Eloy Primary School and the Eloy South School, who will give direction and leadership in cooperation with the music teacher to building a guide for pre-school, 1st and 2nd grade classroom teachers. Because the Eloy Primary School at present has a number of teachers who have excellent backgrounds in music, the cooperative involvement of these people would stimulate the building of music objectives for the primary music program. Arrangements for possible coordination meetings between the chairmen from each of these three schools in the Eloy School District should be scheduled on a regular bi-monthly basis.

2. In direct relationship to the objectives and direction which will be given by this committee of the three schools in the Eloy District

immediate consideration should be given to the purchase of interesting and worthwhile materials for each classroom teacher in the primary grades. It is suggested that the administration be present at the first meeting of this committee in order that realistic budget allotments for this very important phase of the planning be clearly understood by all concerned educators.

B. Second Year

1. Consideration should be given to the appointment or hiring of a music specialist whose educational background in music would encompass knowledge of the total music program grades 1 through 8. This person would be considered a coordinator or supervisor of the total music program; immediate attention should be focused on the building of attitudes with regard to the instrumental program. At present, boys and girls and their parents lack the interest and enthusiasm which a strong instrumental program requires. Close communication with parents in the district will be needed with concentration on objectives which would be cooperatively considered by the instrumental instructor and the music supervisor or coordinator, and educating the boys and girls through the music program at the primary levels as to the benefits derived from the instrumental phase of music education.

   It would be assumed that during the first year of the proposed Music Building Program, a good rapport will have been established between the vocal music teacher assigned to Eloy Primary, Eloy South and Eloy Central and the respective classroom teachers in pre-school, 1 and 2. It is also assumed that the vocal music teacher at the upper grade school will have communicated with the new music teacher in the District. It is hoped that by now these two music teachers will have given thought as to how the programs at their respective grade levels dove-tail and how each of their programs can reinforce each other.

   However, under the direction of the supervisor or coordinator, specific grade level objectives for grades 1 through 8 should be developed. A committee to accomplish this task should be comprised of the chairman of the primary grade levels in each of the Eloy Schools; the music teacher who teaches grades 3, 4, and 5 at Eloy Central and Eloy Primary; the music teacher of the Eloy upper grade school; (and) the instrumental instructor for the Eloy School District.

2. The Supervisor (or coordinator) should provide opportunities for in-service training with emphasis in grades 1, 2, and 3 where by now a receptive attitude should have been established toward the place of music in the classroom and the role which the classroom teacher must play.

C. Third Year

1. Inasmuch as music education in its true relationship to the

total curriculum does not end at the third grade with participation by the classroom teacher, it is recommended that the coordinator concentrate during this period on in-service workshops at the 4th, 5th and 6th grade levels.

2. The person in charge of the audio-visual program in the Eloy Elementary Schools should be a participant in the cooperative planning of these in-service meetings so that the enrichment of films, film-strips and recordings related to social studies in the intermediate grades will become more meaningful in use by the classroom teachers.

The above suggested program is presented in order that affirmative attitudes toward music and its rightful contribution to the educational process will evolve gradually. It is felt that too hastily "stepped up" requirements within the music program itself would defeat its real purpose--a music program that will meet the needs of all children within the district and at the same time encompass the cooperative efforts of the administration, music teachers and the classroom teachers grades 1 through 6.

The following recommendations which will initiate the future building of a strong music program in the Eloy Elementary Schools are being presented in the form of Addendums for the convenience and review by the administration of the Eloy School District.

It is felt that with the availability of Federal funds, the following prepared "ready to go" projects may be helpful to the administration. They would need only to be reviewed and edited by the administration and approved by the School Board before being submitted in 5-copy form to the State Department of Education.

Addendum No. I. A list of carefully selected materials which could be purchased immediately from the fiscal budget was sent to the Superintendent. On page 2 of this addendum, a suggested placement for these materials would immediately be a basis for teachers interest in music activities and provide a beginning for the participation by the teacher in music activities within her grade level.

Addendum No. II. A prepared Public Law 89-10 Project under Title I which would provide funds to be used for an in-service training workshop for classroom teachers and music teachers for a period of 3 days. This workshop would presumably be held in the new upper grade school which has been air conditioned for comfort and could be scheduled either at the close of school in May, 1966, or prior to the opening of school in September, 1966. This Addendum is complete with the exception of answering questions #7 and #8 which would of necessity be completed in light of other projects which are being submitted by the District.

Addendum No. III. This is a prepared Public Law 89-10 Project application under Title I which would provide funds for a follow-up program to the Addendum II proposed project. This Addendum III project could be initiated in January, 1966, and be in operation for a full semester. The specific objectives and plans that are being presented for the careful review by the administration and School Board should be considered in light of extending this as a regular part of the 4th grade music program in the years to follow. The materials which would be purchased for the initial project would become permanent in each of the two schools, and the evaluation of results of the initial Addendum III project would largely determine the extent to which the Eloy Elementary Schools would support its continuance.

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SUPPLEMENT D
RECOMMENDED LIST OF MATERIALS FOR THE MUSIC PROGRAM

CB PRODUCTS
6743 E. Almeria
Scottsdale, Ariz.

1.	10	Getting a HEADSTART Through Music (Record & TM) (ARS-52765)	$3.75	$37.50
2.	8	Getting a HEADSTART Through Music (Record & TM) (ARS-1466)	3.75	30.00

RCA-VICTOR
c/o Ginn & Company
2550 Hanover St.
Palo Alto, California

3.	10	Over 40 of the World's Greatest Children's Songs (CAL-1017)	$1.23	$12.30
4.	10	Lullabies for Sleepyheads (CAL-1003)	1.23	12.30
5.	5	Peter Rabbit, Goldilocks and Other Great Tales (CAL-1001)	1.23	6.15
6.	5	Mother Goose and Father Gander (CAL-1058)	1.23	6.15
7.	5	Jack and the Beanstalk and Other Stories (CAL-1052)	1.23	6.15
8.	5	Songs about "A"nimals "B"irds for Children (CAL-1030)	1.23	6.15
9.	5	Little Engine that Could (CAL-1008)	1.23	6.15
10.	3	45 Songs Children Love to Sing (CAL-1039)	1.23	3.69
11.	3	I Like Holidays (CAL-1055)	1.23	3.69
12.	3	Major Classics for Minors (CAL-1016)	1.23	3.69
13.	3	Hardtack & Famous American Railroad Songs (CAL-1056)	1.23	3.69
14.	4	Songs about Daniel Boone and other Great Americans (LPM-2973)	2.47	9.88
15.	4	Stories & Songs about the Civil War (CAL-1032)	1.23	4.92
16.	2	First Folk Dances (LPM-1625)	2.47	4.94
17.	2	Album No. 1 Let's Square Dance (LE-3000)	1.85	3.70
18.	1	More Major Classics for Minors (CAL-1050)	1.23	1.23
19.	1	Folk Dances for Fun (LPM-1624)	2.47	2.47
20.	1	All Purpose Folk Dances (LPM-1623)	2.47	2.47
21.	1	Folk Dances for All Ages (LPM-1622)	2.47	2.47
22.	1	Album No. 2 Let's Square Dance (LE-3001)	1.85	1.85
23.	1	10 Album Series "Adventures in Music" (LEC-5)	24.85	24.85
24.	5	Record Players (any reputable machine)	50.00	250.00
25.	1	Record Player	50.00	50.00
26.	5	Record Players	50.00	250.00

REDEWILL MUSIC COMPANY
2918 North Central
Phoenix, Arizona

27.	1	(minimum needed) Wurlitzer small spinet (movable)	550.00	550.00
		TOTAL		$1296.39

28. 1 - additional Wurlitzer small spinet as indicated in No. 27 to be available for use in Eloy Primary 550.00

SEE ATTACHED PAGE FOR DISTRIBUTION OF ITEMS LISTED ON THIS PAGE

RECOMMENDED DISTRIBUTION OF ITEMS SHOWN ON RECOMMENDED LIST OF MATERIALS TO BE IMMEDIATELY PURCHASED

Item 1 - one for each first grade teacher in the Eloy Elementary Schools

Item 2 - one for each second grade teacher in the Eloy Elementary Schools

Items 3, 4 - one for each first grade teacher in the Eloy Elementary Schools

Items 5, 6 - one for every two first grade teachers (to be shared)

Items 7,8,9 - one for every two second grade teachers (to be shared)

Items 10, 11
12, 13 - to be shared by third grade teachers

Items 14, 15 - to be shared by all fourth, fifth and sixth grade teachers

Items 16, 17 - one for each primary building in the Eloy Elementary Schools

Items 18, 19
20, 21
22, 23 - to be used by the vocal music teacher for Eloy Central School

Item 24 - to be shared by all teachers in the Eloy Primary School

Item 25 - to be shared by all teachers in the South Eloy School

Item 26 - to be shared by all teachers in the Eloy Central School

Item 27 - to be used by teachers in the Eloy South School

Item 28 - to be purchased if possible for use in the Eloy Primary School

No immediate recommendations for purchase of materials for the new Junior High School have been made. All recommendations above are for the present school program as it exists at this moment.

SUPPLEMENT E

MUSIC PROJECT DESCRIPTION

1. Special educational needs which this project has been designed to meet

   a. This project is designed as a music in-service training program for teachers in the Eloy Elementary Schools, including classroom teachers and those directly concerned with music instruction.

   b. This in-service training program is designed to strengthen the existing music program, but more so, to lay a foundation for extending music activities into the lives of the economically deprived children during the school day.

   c. The above purposes of this project are planned as a pre-requisite for a second recommended project which will be submitted whereby music can then become a form of communication and participation between the school and the home.

2. Specific objectives of the project

   a. To provide the general classroom teacher in the Eloy Elementary Schools with instruction as to ways in which she can feel confident in using music within the classroom.

   b. To provide opportunities for review of music materials, new techniques of teaching music, and evaluative procedures for making music a part of the educational growth of a child.

   c. The two above objectives of the project will directly influence the child by increasing his understanding and appreciation of music.

3. Special educational activities or services to be initiated and maintained under this project

   a. Detailed description

      (1) To furnish a qualified instructor who is acquainted with both music instructional techniques and elementary educational practices.
      (2) To furnish materials, equipment and other necessary items for this in-service workshop. These items which will be used during the training sessions will ultimately become materials to be used in classroom instruction and for the continuation of the music program.

   b. Name, location and types of facilities to be used in connection with this project. Explain fully the need, if any, for the conduct of project activities on private school premises

(1) Instruction for this project will be conducted in an existing room within one of the District's school buildings; preferably the music room of the new Junior High School.

c. Arrangements for the participation of children enrolled in private schools

(1) There are no children involved in this proposed in-service training project.

4. Anticipated effectiveness of the project activities

a. Types and extent of improvement expected in educational attainment of educationally deprived children

(1) This requested project is specifically designed for teacher in-service training. Children's participation will ultimately result from the instruction given in this period of instruction.
(2) It is anticipated that teachers will become more aware of the role that music plays in the lives of children. Consequently, through in-service training, will ultimately help children to become more appreciative of the role which music plays in their present and future lives.

b. Basis for expecting such improvement

(1) Improvement is expected because of increased teacher knowledge and awareness of ways in which music can become an integral part of the total educational program.

c. Possible alternative methods of achieving the objectives (item 2) and reasons for selecting the methods proposed for this project

(1) It is felt that there are no alternative methods to achieve the over-all effectiveness in the leadership and communication which would result.
(2) Reasons for selecting the methods proposed in this project are:
    (a) A qualified instructor with a background of experience in conducting in-service training programs will achieve a maximum in experiences for classroom teachers with a minimum amount of time involvement as compared to an inexperienced instructor who would be achieving the minimum of experiences in large group instruction.

5. Proposed procedures and techniques including appropriate measures of educational achievement for evaluating

a. The effectiveness of the program comprising all of the projects submitted or to be submitted by this applicant. (If reported on a previous project application omit and give the project number and date of application).

(1) Continuous evaluation will be an integral aspect of this in-service training, both in immediate evaluation during the period of teacher instruction; and an evaluation during the regular school year when techniques and teacher instruction take place in the classroom with the children themselves.

b. The effectiveness of this project

(1) The effectiveness of this project will be particularly noticeable by an improvement of the general classroom music program during the next school year.

6. Specific procedures and activities to be undertaken (in connection with, but not necessarily limited to the scope of this project) for the dissemination of significant information derived from research and demonstration of projects and for the adoption of promising practices. (If the planned procedures and activities have been reported on a previous application, omit description and give application number and date).

a. A carefully recorded report of this project and of the project which would be presented as a school - home program would be available for examination. This information and any significant achievements would be made available to interested parties.

Questions 7 and 8 would need to be answered by the administration in lieu of the fact that we are not acquainted with present programs in operation.

ESTIMATED COST OF PROJECT

It is recommended that this be a three day concentrated in-service training session which would be scheduled immediately upon the close of school in May, 1966, or a possible alternative plan would be to call the teachers back 3 days prior to the opening of the schools in Sept. 1966.

The classroom teachers who would attend and participate in this workshop would include all teachers grades 1-6 (at present 41) plus the 2 music teachers. It is recommended that these teachers be paid a minimum of $15.00 for their attendance at these sessions, per day.

APPROXIMATE COST FOR TEACHER ATTENDANCE: $1935.00

Because much pre-planning and preparation for the 3 day in-service training sessions would be necessary for the specialist who would be in charge, a minimum of $300 would be considered necessary--$100 per day, plus $15.00 per day for allotment to take care of room and board.

COST OF MATERIALS:

Purchase of 4 autoharps	-- $200.00
Purchase of 4 sets of resonator bells	-- $152.00
Purchase of selected recordings which would be used in demonstrations and then placed in appropriate schools for continued use throughout the school terms	-- $500.00
Purchase of 15 Phonographs which would be assigned for the sharing of teachers in the coming year within individual schools	-- $750.00

APPROXIMATE COST OF TOTAL PROJECT: $3897.00

SUPPLEMENT F

MUSIC PROJECT DESCRIPTION

A carefully planned program is outlined below that will result in the growth, understanding and value of music in the lives of impoverished people, both adult and child. Research has shown that whenever and wherever parents are involved in the educational growth of their children, they themselves benefit educationally, and an appreciation and understanding of educational goals is achieved. Consequently, a program designed that will include adults, their children, and the school, opens the door to the values of all phases of education, and particularly music; yet, the cooperative attitude and ultimate attainment of the educational objectives are so planned that parents need not feel restricted to attending classes at school, but rather can learn in their own home along with their children in this particular project.

1. Special educational needs which this project has been designed to meet

    a. to develop a closer school-home relationship and cooperative spirit.
    b. to develop an appreciation in the homes as to the importance of education THROUGH music.

2. Specific objectives of the project

    a. to develop an appreciation and understanding of the part that music plays in the lives of all people, adults and children.
    b. to provide opportunities and uncover innate and latent abilities among children with regard to music.
    c. to lead children to explore the possibilities of the piano.
    d. to pave the way for instrumental and vocal specialists to develop special skills among children.
    e. to develop many opportunities for children to participate in activities which promote musical growth.

3. Special educational activities or services to be initiated and maintained under this project.

    a. Detailed description
    The initial introduction to this concept of school-home educational program would begin at the fourth grade level. This grade level was selected because the maturity for the learning of music concepts is ideal at this grade level for beginning activities in music fundamentals. This program would involve singing, listening and instrumental activities on the part of the participating students. This initial program would involve the following types of equipment whose need and use is briefly explained under each item:

    Pianos--a minimum of three pianos for each of the two schools would be needed for this project. This request is being based on the research which shows that actual piano participation by students is important for maintaining and developing and increasing the interest in piano instruction above and beyond the piano keyboards used by students at their seats; in a limited group of 25 students at a time, no more than two would actually play one instrument at the same time. The minimum of three pianos would provide possibilities for ensemble work as the students progress.

Resonator Bells--three sets of resonator bells would be essential with a group of 25 students. These bells would be used intermittently with "live" piano participation. The alternating use of both pianos and bells together with seat participation on cardboard keyboards would extend the learning of music concepts.

Visual Way Piano Method: one keyboard (electrically operated by the teacher) would be essential, plus an individual set of the accompanying materials for each child in the fourth grade.

Rhythm Instruments: -- a minimum of 6 sets of selected rhythm instruments would be essential (3 sets for each school) for the class number of 25 students at each session.

Tape Recorders:-- a minimum of ten combination electric or transistor type for each school (total of 20). These would be purchased for the flexibility of home environmental factors which would need to be considered, and in light of the fact that these tape recorders would be used intermittently by parents whose children would be participating in the program it would be necessary to have some battery operated tape recorders. A two phase program for the use of these tape recorders is presented:

(1) used in a planned program which would include taping of individual student and his participation in the piano class activities. (This phase is extremely important in order to maintain interest and motivation of the students by parents approval and understanding, and also to provide opportunities for musical growth and understanding on the part of the parents.

(2) the check-out system of tape recorders would be used. A small tape recorder would be easily handled by students, and previous to their taking the recorder home, instruction on the operation and care of the machine would be given by a specialist in this field.

Phonographs:-- a minimum of 5 combination transistor battery operated phonographs for each school (10). These, like the tape recorders, would be purchased for the flexibility of home environmental factors and ease of handling by children. The check-out system for the phonographs would be of a similar nature as the tape recorders.

Recordings:-- a minimum of 50 selected recordings for each school (total of 100) would be available in connection with the check-out of the phonographs. The use of recordings for check-out to the homes of these children would be a tremendous device for extending music appreciation into the homes of children. Not only would parents become acquainted with the music which their children have learned to love, but with the use of recordings, both parents and child will feel a part of the school curriculum.

Through the use of the tape recorders, phonographs and recordings, the families of impoverished children could be brought into the program through their participation at home, without being confined to a schedule, and it is believed that the versatility of this phase of the project is very important.

b. Name, location and types of facilities to be used in connection with this project. Explain fully the need, if any, for the conduct of project activities on private school premises.

   (1) A designated room within each of the two schools where 4th grades are held with the equipment as outlined under 3a would be adequate. Because the expected achievement in musical understandings, the opening of a completely new media for class instruction, and an increased desire for personal achievement, it is hoped that this project could be conducted during two full days in each school with 25 students in each session.

c. Arrangements for the participation of children enrolled in private schools.

   (1) This would be designed for the children in the Eloy Elementary Schools primarily.

4. Anticipated effectiveness of the project activities

   a. Types and extent of improvement expected in educational attainment of educationally deprived children.

      (1) The improvement expected in this project would be twofold: Student: The musical experiences which children have in the singing, rhythmic and creative responses which can be effectively enlarged and made still more vivid through the piano keyboard. Since the tactile sense of children is very keen, where better than at the piano can they get the sensation of high-low, soft-loud, fast-slow, short-long, step-skip, repetition differences? The discoveries through hearing and bodily response are made still more clear through feeling with their hands. A knowledge of key signatures and music fundamentals would evolve, gradually involving scale numbers within five-finger hand position, playing in base and treble clefs; learning to play the primary chords and using them as accompaniments to simple songs. INNATE FEELINGS OF CONFIDENCE WOULD BE FOSTERED THROUGH ACHIEVEMENT, PLUS THE DISCOVERY OF INDIVIDUAL TALENT AND INTEREST.

      Parent: The development of a sense of pride through their own children's accomplishments and through their own personal involvement. They themselves will take pride in their own educational improvement and attain a feeling of confidence through their ability to learn and to grow musically. A feeling of community pride through this voluntary involvement with their children's musical accomplishments and through contributions of their own culture and the part it plays in making America such a wonderful land in which to live--all contributions being an integral part of American citizenry.

b. Basis for expecting such improvement

A well planned program for the attainment of the objectives as set forth previously; involvement of school, home and parent-student relationship.

c. Possible alternative methods of achieving the objectives (item 2) and reasons for selecting the methods proposed for this project

Considerable care and planning has gone into the over-all project, thus eliminating any possible alternative methods for attainment of the objectives outlined.

5. Proposed procedures and techniques including appropriate measures of educational achievement for evaluating

a. Continuous evaluation is an integral part of the over-all project which will involve periodic meetings between those responsible for the success of the program.

b. Evaluation will be two-fold:

(1) As to the effectiveness of the objectives set down for the classroom and student instruction periods. (2) Evaluation will take place each week through periodic home visitation.

6. Specific procedures and activities to be undertaken (in connection with, but not necessarily limited to the scope of this project) for the dissemination of significant information derived from research and demonstration projects and for the adoption of promising practices. (If the planned procedures and activities have been reported on a previous application omit description and give application number and date).

a. A carefully structured report of this project and the evaluation of the previous project in teacher training would be in direct relationship. This information and the final recordings of class participation would be made available to interested parties.

Questions 7 and 8 would need to be answered by the administration in lieu of the fact that we are not acquainted with present programs in operation.

ESTIMATED COST OF PROJECT

It is recommended that this project begin the second term of the 1966-1967 school year. It should be scheduled at both Eloy Primary and Eloy Central Schools where 4th grade boys and girls are attending regular classrooms. A minimum twice weekly schedule at both schools would be scheduled--one half day of each two days at Eloy Primary School and the second half of each two days at Eloy Central School.

With the facilities of one room equipped for meeting the needs of the instructional periods, as well as housing the needed equipment--each of the two above mentioned schools would provide the room within their plant for the piano classes. On the three remaining days of each week, the room should be designated for practice periods by students.

1. Project Director:
   The responsibilities of the project director would be for the organization and development of the over-all project, including the lessons planned for class instruction, the selection of materials for achieving the objectives as set up; the interviewing and selection of personnel to carry out the teaching phase of the project; and the continuous evaluation between both school activities and home participation; the final evaluation report for future program extensions and improvements.

   Estimated cost for the services of the Director @ $200.00 per week for a period of 20 weeks -- $4,000.

2. Selection of a music instructor for the actual classroom instruction at $37.50 per day, two days a week for a period of 20 weeks -- $1500.

3. Consultant services of consultants in the following areas:
   Audio-visual education: either to select a qualified individual or take the immediate responsibility himself for the selection, purchase, and maintenance of audic-visual equipment (tape recorders and phonos) and to provide student-parent instruction on use of this equipment. He would be responsible for keeping a complete inventory in an organized manner, so that all students and parents of these 4th grade students would have the opportunity to receive and make use of the recorded materials periodically during the 20 week session.
   $37.50 per day, two days a week for a period of 20 weeks - $1500.

   A bi-lingual (Spanish, English) speaking individual appointed by the project director whose job would be to maintain a sense of communication, which in turn would be a fringe facet of learning to the general music program. He would act as interpreter on home visits with the project director. It would be ideal if a member of the community could act in this capacity.
   $50.00 per week for 20 weeks -- $1,000.

4. Visual Way Materials:

Pupils who have had Visual Class Piano instruction in the grades have received a fine fundamental knowledge of music which is invaluable to them when they desire to participate in Band, Orchestra and Glee Club activities in the High School. It is recommended that direct communication with THE VISUAL WAY, P.O. Box 593, La Crescenta, California be done immediately to establish an equitable amount for use of the lighted keyboard which is operated by the teacher, as well as the material for this large a group. Materials for each child are $2.00 - estimated enrollment of 180 pupils -- $360.00. Under ordinary circumstances, the cost is based on a $3.00 per month per child. However, with a project of this nature, undoubtedly a reduction would be in order, based on $3.00 per month per child for the 20 weeks -- $2700.00.

5. Pianos:

Cost of each piano is $500 -- Total of 6 pianos -------- $3,000.00

Resonator Bells:

Cost per unit would be $50.00 -- Total cost of 6 sets -- $ 300.00

Tape Recorders:

Cost per unit would be $50.00 -- Total cost of 20 ------ $1,000.00

Phonographs:

Cost per unit would be $50.00 -- Total cost of 10 ------ $ 500.00

Phonograph Recordings:

Cost of 50 for each school -- Total of 100 would be ---- $ 400.00

6. Evaluation through recorded outcome of students: A final "open house" would be featured as part of the culminative experience at the close of school in May. A recording company would be contracted in order to tape and press recordings of the achievements of these boys and girls in the fourth grade piano instruction classes. It would be recommended that each child be given a recording to take home and enjoy with his parents.

Estimated cost -- $250.00.

As a part of the complete evaluation, these recordings would also be available to other areas in the country for examination and evaluation.

It would be recommended that selection of the project director as well as the consultants be considered from the University level. A possibility of graduate students who would be carefully screened for their respective positions would appear to be the most logical approach to the success of this over-all project.

ESTIMATED COST OF THE TOTAL PROJECT: $16,510.

HOME ECONOMICS

Point of View

Home economics education for early adolescents has moved away from a specialized subject area centering on clothing construction and food preparation to a program having as its major objective the education for homemaking and family life in its broadest context. In the home economics program, according to Dorothy Lawson and Dr. Elizabeth Simpson, there is need for increased emphasis on insight and understanding of human growth and development, management of personal and family resources, and personal and family relationships, and, concomitantly, less emphasis on clothing construction and food preparation. Dr. Simpson also suggests that home economics should stress the "roles of woman" core. Girls need to develop an understanding of their many possible roles--homemaker, mother, professional worker or skilled service worker. The role in the home and the community of a single woman is important to include in home economics.[1]

The Vocational Act of 1963 has brought into focus the need for curriculum planning in the area of preparation for employment in occupations requiring home economics skills and knowledge, along with or separate from the education of the individual for home and family life. It is realized by leaders in the field that education for gainful employment is the main concern of senior high or adult programs, but studies about occupational choice-making do indicate that at the junior high level many individuals become interested in their future occupations. In a community where some girls may not complete high school it seems especially necessary to show possibilities for future vocational training in home economics even though high school has not been completed. The college-bound students need to learn more about the many opportunities for professional careers in home economics for some of them have only encountered home economists in teaching.

The ever increasing amount of knowledge available to teach in home economics requires that careful selection be made of the significant things to be taught with a definite effort toward establishing continuity in the program and the development of depth in areas rather than just an introduction to many areas. It follows, therefore, that each area of home economics cannot be included every year, and a decision about which year to include a specific area, such as child development, will depend upon the maturity of the students and facilities available for teaching. Whenever such basic curriculum decisions are contemplated, it is important to have a representative group of parents, former students, and community members to help advise the individuals setting up the home economics program. So that the program can be functional for the students involved, cooperative planning with them is highly desirable. Also because of the new scientific knowledge and changing social, economic, and technological conditions, any home economics program needs frequent appraisal, and curriculum revision must be a continuous process.

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[1] Elizabeth Jane Simpson, "Projections in Home Economic Education," *American Vocational Journal*, XL (November, 1965).

It may be desirable in many situations to include boys in the program--at least part of the time. Dr. Lloyd Trump, Associate Secretary of the National Association of Secondary School Principals, strongly supports the idea that all boys and girls need to participate in family life education. He envisions this type of education as thus:

> This content will be organized logically and sequentially to cover a thirteen-year period. Students will start the homemaking program when they first enter school at ages five or six. They will continue through it until they leave school or graduate at ages sixteen to eighteen.[2]

Gertrude Noar in her book on the junior high school takes the following viewpoint:

> It has become essential for boys and girls to study and work together...to talk together, to understand each other's role in family living. This, coming in early heterosexual adjustment, is a most important way of meeting adolescent needs.[3]

She states in another part of her book:

> Probably no part of the junior high school curriculum can offer greater opportunity for instruction and guidance in inter-personal relations than the practical arts program, if the practice of segregation by sex in these classes is ended. Both sexes are equally in need of creative industrial arts experiences, of help with personal grooming and etiquette, of guidance in family relations and baby care, and of consumer education, all of which can be incorporated into the practical arts program. While they make useful articles in the shops and good things to eat in the kitchens, boys and girls learn to help each other, to talk together, to plan and work together effectively.[4]

Whether or not boys are scheduled for home economics separately or with the girls depends upon administrative viewpoint, facilities available, community attitudes and other numerous factors. If both boys and girls take home economics, the experiences planned may need modification, such as in the area of clothing construction.

Miss Edna Amidon, former Chief, Home Economics Education Branch, Office of Education, states that experiences with different types of programs for early adolescents seem to indicate that a one semester course in home economics offered daily is more effective than a two semester course offered one or two times a week. If home economics is offered to early adolescents only once a week, the students forget what they accomplished during the previous class.

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[2] J. Lloyd Trump, "Home Economics--A Look Into the Future", The Bulletin of the National Association of Secondary School Principals, XLVII (December, 1964), 81.

[3] Gertrude Noar, The Junior High School Today and Tomorrow, 225, 226.

[4] Ibid., 305

In "New Directions--A Statement of Philosophy and Objectives", prepared by a committee representing the American Home Economics Association it states:

> "We believe the clearest new direction for home economics is to help people identify and develop certain fundamental competences that will be effective in personal and family living regardless of the particular circumstances of the individual or family".[5]

Home economists are especially aware of their responsibilities toward low-income families and helping them achieve better family life. In order to assist its members in understanding some of the problems of low-income families the American Home Economics Association sponsored a national workshop, "Working with Low-Income Families." At this workshop, Dr. Allison Davis, noted sociologist, states that home economics teachers should help the children from these families to reduce the amount of sweets they eat and emphasize the eating of breakfast and lunch. He also believes that home economics classes should seek to find better ways of teaching money management to these children from low-income families so they can establish the habit of saving even though the amount is small. He also believes that the home economics program should continue to emphasize infant care and child rearing, care of clothing, and simple furnishing and care of the home.[6]

Whatever the nature of the program offered in home economics, it is important to consider that this may be the only opportunity some girls will have to be exposed to home economics for some may terminate their education at this point and others may not be able to elect home economics in a college-preparatory program. Studies also indicate that the program offered in the early adolescent years affects the high school student's attitude toward home economics. The learning experiences offered the students should be challenging, promote problem-solving, and encourage self-direction. These experiences do not need to be the same for all students but can be individualized so as to meet the needs of students of all abilities. Opportunities for creative experimenting have special appeal for more able students.

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[5] "Home Economics New Directions--A Statement of Philosophy", a report by the Committee on Philosophy and Objectives of Home Economics.

[6] Allison Davis, "Changing the Culture of the Disadvantaged Student", Working with Low-Income Families, pp. 25-32.

Observations and Commendations

Home economics was required of all girls in the sixth, seventh, and eighth grades and met once a week for a double period. The length of the periods varied, but for the most part they appeared to be about one hour and a half in length. The classes were held in a portable building which was pleasant, colorful, and seemed reasonably well-equipped with large equipment. For example, there were four unit kitchens for classes which were approximately 16-20 in number, and there were eight sewing machines and seven tables in the room. The storage space for individual student projects appeared to be quite limited, and the teacher indicated that theft of completed garments and materials seemed to be a problem so projects did need locked storage space. There was not an enclosed area for fitting garments so a portable blackboard and screen were used to permit privacy for trying on garments.

All three classes observed were on clothing construction projects. The sixth grade classes were finishing aprons and the seventh and eighth grade students were constructing simple shifts. The teacher indicated that the classes were progressing rather slowly because of lack of previous experience in the clothing area. The teacher also stated that time had been spent in the foods area the first semester. It seems up to the present time that the program has been largely clothing and food-centered.

An examination of the bookcase showed an adequate number of home economics textbooks for the early adolescent, and other copies of books were available. Co-ed, the student edition of Practical-Forecast was also in evidence.

The teacher appeared professionally interested in the program and was interested in gaining suggestions to make the offering more meaningful for the students. She expressed concern over the lack of carry-over from week to week and stated that she believed offering the program once a week limited its effectiveness.

Conclusions and Recommendations

In order to strengthen the program of home economics, the following recommendations are presented:

1. The scheduling of home economics should be changed so that the classes can meet more frequently than once a week. If it is felt that additional total time cannot be scheduled, then the classes should be concentrated into one semester of each year or the time shortened for each class meeting. For example, a fifty-five or sixty minute period five times a week for one semester would be more desirable scheduling than offering home economics for a double period for an entire year.

2. The program as it now exists is not a comprehensive one and needs to be broadened. Some areas that need strengthening are child development, personal and family relationships, consumer education, and management. The areas of personal and family relationships and management need to be integrated throughout the entire program,

as well as offering distinct units in these areas. In order to be sure that the program is meeting the needs of the students in the school community, it may be desirable to involve parents, former students, and present students in evaluating the program and making suggestions for improvement. Also the high school which serves the attendance area should be consulted about the home economics program offered so that articulation with the high school program can be meaningful, but not repetitious. Cognizance of the needs of students from low-income families should be of special concern to those involved in revising the home economics curriculum.

3. If the program is broadened to include more areas of home economics, then, of necessity, the time spent in the areas of clothing construction and food preparation must be lessened. It would seem desirable to leave the area of construction out of the sixth grade sequence entirely because lack of good muscular coordination makes it difficult to be successful in this area and may lead to discouragement for some students. A decision might even be reached to include a longer unit on clothing construction in the eighth grade and omit the area before this level is reached.

4. If the home economics program is to be made more comprehensive, then more teaching materials need to be available for teaching the various areas (i.e. examples of children's toys, items of common wearing apparel for teaching consumer education). Also a wide selection of pamphlets should be purchased so students can find resources to fit their respective reading levels. These pamphlets can be obtained from United States Extension Service and other educational agencies quite inexpensively.

5. Throughout the program emphasis should be on the mastery of main concepts even when developing a skill. Problem solving and the experimental approach can be used throughout the program in order to develop insight, give practice in solving problems, and sharpen judgmental ability. Even slow learners can gain the key ideas if the learning experiences are vivid, even though they may not be able to remember all the facts to document the concepts.

6. A long-range budget and departmental plan should be made. Even though the department is adequate in size at the present time, the distance from the new building may make its use less effective. Perhaps the moving of the facility nearer to the new school may be possible since it is a portable building. Individual tote trays or other individual storage space should be built into the present building. Also a fitting room can be provided by putting in a circular rod with a curtain that can be pulled. Teaching materials need to be added gradually in all areas of home economics.

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PHYSICAL EDUCATION

Point of View

Physical Education in the Eloy Elementary District No. 11, Pinal County should aim to provide skilled leadership, adequate facilities and varied programs which will afford opportunities for each child to act in situations which are physically developmental and wholesome, mentally stimulating and satisfying and socially sound. Physical Education implements a key purpose of Education: to improve the quality of human behavior.

A graded program of activities presenting a broad, challenging scope and realistic sequence should be offered from the first grade through the eighth. Every child should be given an opportunity to develop a varied and extensive motor vocabulary to support his learning in other curricular areas; to develop physical vitality and stamina through participation in vigorous activity; to develop emotional stability through the solution of human problems in situations relating to physical education activities; to develop a realistic self image as well as tolerance and respect for the capabilities of others and to develop habits of active play which will enrich his entire life. He should achieve sufficient skill and judgment to choose activities adequate to his needs in an automated sedentary world.

Human movement is the basic subject matter of physical education. The opportunity to explore and discover 'what my body can do' is essential, especially in the first and second grades. The physical education class is also a laboratory for the practice of proper health and safety learning. Emotional health and feeling at home in one's own body are closely related to motor patterns and success in physical activity. Facing reality is one of the most difficult challenges to meet. Sports, self-testing activities and rhythmic activities present many situations through which the child may be taught to face and solve problems. Such traits as honesty, courage, persistence, courtesy, subordination of self to teamwork, self discipline, respect for constituted authority and other similar characteristics of mental and emotional habits and attitudes may be developed through these activities.

Every child, no matter what his handicaps or abilities, has a right to an adequate program which will give him the opportunity to develop to his optimum.

The Physical Education Program

The physical education program may be divided into four main categories: (1) Class instruction; (2) intramural competition for all who desire it; (3) inter-school competition; and (4) programs, demonstrations and the like. Of these, the main emphasis is on class instruction.

The class instruction program may also be subdivided into four main categories:

1. Games and sports which give opportunity to utilize the skills learned

in the primary grades. In intermediate and upper grades, 30 to 50 percent of the time should be spent in this area.

2. Self-testing activities which include stunts, tumbling, gymnastic and fitness program activities. Depending on the grade level, from 15 to 30 percent of the time should be spent in this area.

3. Rhythmic activities which should include creative rhythms, folk, social and square dance. In the first grade, 80 to 90 percent of the time should be spent in movement exploration and rhythmic activity. Folk dance should be emphasized in intermediate levels (approximately 30% for all types) and the social and square dance at the 7th and 8th grade levels; 15% for boys, and 30% for girls who should also be given creative rhythms moving toward modern dance.

4. Aquatic activities which may be offered to insure basic water safety skills. This may be offered at first at the sixth or seventh grade level.

A key concept for class instruction involves creativity. Creativity can be stimulated in all areas of the program. Play is a natural way of learning and expressing for the child. Through structured play he is encouraged to utilize his past experience and his imagination in his own form of outward expression. Individual expression can be developed as the child finds new ways to: play with jump ropes, balls, climbing apparatus and other equipment; use basic movement skills in simple games; engage in team games, individual and dual sports; participate in rhythmic movement; discover the incentive of self competition in self-testing activities; and devise game strategies, formulate rules and experience roles of leadership.

Many teachers believe that children automatically learn basic body handling skills. Experience has proved that this is not true. Children need to be taught space awareness, efficient locomotor and axial movement, ball handling and other manipulative skills. Basic skills and motor patterns must be learned in the primary grades as a basis for subsequent sequentially designed programs of varied activities.

Intramural competition should be provided for every child who desires competition at his own skill level. Intramural activities are based on skills and games learned in the instructional program.

Inter school competition is an opportunity for the motor gifted to experience challenging competition with other boys and girls of equal advanced skill.

Programs, demonstrations and the like may be for both gifted and average children and provide an opportunity for boys and girls who do not particularly wish to engage in highly organized competition but who need the recognition of performance and an opportunity to present creative work as in dance, stunts or highly developed skill in demonstrations and gymnastic performance.

Observations and Commendations

The administration, physical education and classroom teachers are to be commended for their cooperative attitude and the courtesies extended during the visitation. The physical education teachers seem well trained in most activity areas and appeared eager to provide a varied and enriched program designed for the particular needs of Eloy School District children. The classroom teachers and the school nurse appeared interested in promoting the best development of the children.

General Observations

1. Class size at Central School was adequate and effective. In some instances at South and Primary schools there were too many children and too little equipment for effective instruction.

2. Schedule.

   a. There was some variation in instructional time for the several grades. Many children did not experience activity daily.

   b. The greatest inconsistency was at the primary level where some children rarely received organized physical education instruction.

3. Program Content.

   a. South School appeared to have very little formal physical instruction of any type. Individual teachers did some teaching of rhythms and games.

   b. At the Primary School instruction in physical education depended on the planning and interest of the individual classroom teachers. Most observed activity would fall under the heading of supervised free play.

      (1) There was a feeling on the part of some of the teachers that children automatically learn simple motor patterns and skills without instruction.
      (2) There was interest but lack of skills in activity teaching and program planning on the part of some teachers.
      (3) Some teachers expressed the need for a special teacher of physical education to best serve the needs of the children of Primary School.

   c. Central School.

      (1) Planning included making good use of seasonal activities, space available and instructors' capabilities.
      (2) Variety of activity was limited and was so recognized by the instructors. Rhythmic activity was minimal.
      (3) Intramural programs were weak to non-existant.
      (4) There was strong emphasis on the interschool program.

(5) Little emphasis was placed on demonstrations and programs.

(6) A commendable effort was made for fitness development, especially through the stunt and gymnastic program. The instructors evidenced interest in improving this area.

(7) There was no written program to show sequence from grade to grade, nor was a written statement of philosophy or objectives available. Apparently matters pertaining to purposes and program sequence had been discussed only informally during the planning of space and facility scheduling.

4. Methods.

a. Methods varied with individual teachers in South and Primary schools.

b. Traditional organization and methods of presentation were used at Central school.

(1) Although some attempts were made to individual-instruction, most practice was geared to the average or above average child. Other children were made to feel frustrated because of lack of success.

(2) In some cases children spent more time awaiting a turn than in activity.

5. Facilities, Equipment and Materials.

a. South School.

(1) The playground was extensive but in relatively poor condition for physical education activities.

(2) Equipment was minimal and scattered among the rooms.

(3) A piano and indoor room were available for rhythms and indoor games.

b. Primary School.

(1) The playground was adequate for instruction and in good condition.

(2) Stationary equipment such as swings and the like were well placed.

(3) There was inadequate indoor play area.

(4) Equipment was minimal and divided among rooms.

c. Central School.

(1) The gymnasium-auditorium was adequate and well scheduled for use by both boys and girls. The custodial service was less than good. Dirty rooms tend to degrade programs.

(2) No shower facilities and minimal dressing facilities were available.

(3) Field space was adequate and in fair condition.

(4) Minimal equipment for indoor games and outdoor games of lower organization was available. This limited program offerings.

(5) A variety of equipment for team games was provided but in insufficient quantity to keep most children active most of the time.

Conclusions and Recommendations

It was apparent that the physical education program in the Eloy Elementary District No. 11 was promoting the physical, mental and social growth of its students. However, there is still much room for improvement. This report was intended to assist in that direction. It was not the survey staff's purpose to criticize the system's lack of dressing facilities, instructional equipment and the like, but rather to give direction as to what might be considered for reinforcing and improving the existing programs. With this thought in mind the following recommendations are proposed:

1. A daily physical education instructional class should be scheduled for each child:

   Primary grades - 15 to 20 minutes per day
   Intermediate grades - 25 to 30 minutes
   Upper grades - 30 to 40 minutes

2. The program content needs to be re-examined and a written course of study constructed to ensure variety and a sequence from grade to grade beginning with the first grade where basic motor patterns should be developed.

   a. An enriched program of individual tumbling and gymnastics in a developmental sequence, grades one through eight, is recommended.

   b. Develop rhythmic activities for both boys and girls in all grades. Emphasize a creative approach in the primary grades. Teachers may need courses or workshops to review the new methods and materials in this area.

   c. Improve physical education instruction at the primary level. There seemed to be a misunderstanding of the importance of developing adequate motor patterns and skills at this level, not only as a basis for later skills, but because of the close relationship of motor patterns to the development of successful reading skills. Also apparently misunderstood is the importance of the task-solving approach to the development of self confidence and self image. A workshop or extension course in this area for primary classroom teachers and physical education teachers would be highly desirable.

   d. Better organized programs should be planned for handicapped children. Here again the movement (discovery approach) can be helpful at all ages.

e. A special physical education teacher to help the classroom teachers plan and teach classes for primary children would be a distinct asset.

f. Use of the task-solving approach so that all children are active most of the time, instead of waiting for turns would improve program quality.

g. Recesses should be scheduled so that they do not interfere with organized class instruction in physical education.

h. Facilities and Equipment.

   (1) On the primary playgrounds, large truck tires, tiles, earth mounds and the like would encourage climbing and body awareness. These are inexpensive and more effective than swings or slides. Jungle gyms, low turning bars, balance beams and low curves are also desirable for balance development and experimentation.
   (2) Record players with electrical outlets at effective teaching stations would facilitate program improvement. In primary schools a record player and file for records is desirable. They can be shared by adjacent rooms.
   (3) Records for exercises, rhythms and dance are needed at all levels, especially at the primary level. Folk, social and square dance records are needed for intermediate and upper grade levels.
   (4) Playground balls of various sizes (4-inch, 6-inch, 8-inch) should be provided in quantity for each class. (It is as unreasonable to expect a child to learn to handle a ball with one to 30 children as it is to learn to read with one book for 30 children). Every room, of course, does not need 30 balls; they may be scheduled and shared by four to six rooms.
   (5) Also needed are other manipulative materials for primary grades and quiet games for all children. Bright colored equipment would be preferred. Lummi sticks, quoit circles, plastic bottles (from home), jump ropes (both long and individual), jacks, balance board, bean bag, and the like should be provided.
   (6) Indoor play areas of roofed slabs for use during hot, rainy days, irrigation days or foul weather are needed. Hop scotch, four square and goal lines may be painted on sidewalks or surfaced slabs for program enrichment.
   (7) Dressing and shower facilities should be provided for grades 5-8.
   (8) A shower and running hot and cold water are needed in the nurse's offices.
   (9) Proper ventilation (heating and cooling) is essential in all dressing and shower facilities.
   (10) Custodial services are needed to keep dressing rooms immaculate for health reasons and to establish proper

attitudes. Improved custodial services are also recommended for the Central School Gymnasium.

i. Miscellaneous:

(1) Physical education classes are instructional periods. Teachers should not restrict attendance for disciplinary reasons.
(2) The following books should be provided for each primary teacher:

Andrews, Gladys. *Creative Rhythmic Movement for Children*. Prentice-Hall, Inc. 1954.

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INDUSTRIAL ARTS

Point of View

All pupils should have experiences which stimulate and encourage them to develop their talents and interests. There must be opportunities for creative expression and problem solving experiences as individuals as well as through group activity and class assignments. The overall program should be flexible, comprehensive and organized.

Industrial arts is that important phase of general education concerned with the materials, processes and products of manufacture, and with the contributions of those engaged in industry. The learnings come through the pupil's experiences with tools and materials and through the study of resultant conditions of life.

As general education, the objectives of the industrial arts teachers are not essentially different from those of other subjects or areas.

If properly conceived and taught, Industrial Arts instruction should greatly facilitate the development of:

Self-Understanding
Enrichment of other Subjects
Improved school morale
Understanding of Environment
Industrious work habits
Increased resourcefulness
Creativity
Avocational interests
A safety consciousness
Problem solving abilities
Accuracy and Orderliness
Respect for Property
Cooperative Attitudes
Consumer appreciation
Appreciations of an Industrial Society
Elementary and limited skills and technical information

These and other outcomes which could be listed should not be thought of as vague or remote educational "hopes" or ideals.

To the contrary, realization of these outcomes may be achieved through the means of a planned major framework of scope and sequence for Industrial Arts instruction in grades six, seven, and eight. Important to the development of this curriculum framework for the three grade levels are the considerations of mental and physical maturation, sex differences, individual differences as well as the numerous limitations unique to a given school or school system (facilities, scheduling, etc.).

In general, the successful framework for upper elementary grade levels in Industrial Arts instruction is one which endorses the points of view expressed above and attempts to implement this philosophy through the means of the comprehensive General Shop approach. This is essentially a multiple activities approach guided by one teacher. More specifically, the shop or laboratory is equipped and arranged for the presentation of units of instruction in several Industrial Arts subjects or media. Typically, these media include metals, woods, crafts, electricity, drawing and graphic arts. Because of the variety and nature of the multiple activities approach, it is essential that the teacher prepare and make use of written instruction sheets in the forms of:

(1) Activity assignment sheets
(2) Operation sheets
(3) Information sheets

Their use together with group demonstrations and individual follow-up demonstrations, provide the basic teaching framework. Regardless of the media, emphasis should be upon planning, drawing, designing (including creative opportunities), testing, experimenting, problem solving, research, reporting, evaluating and constructing or repairing projects.

Observations and Commendations

The Industrial Arts Program was housed in a wooden structure of 22' x 40' dimensions overall which provided an actual shop or laboratory space of only 20' x 28'. Floors were wood, ceilings were celotex sheeting and natural lighting was poorly provided by means of nine small windows covered by disintegrating screens. Artificial lighting consisted of nine exposed, incandescent 200 watt bulbs. Both natural and artificial lighting were inadequate at machine, bench, and reading levels.

A very small screened tool area was also used to serve in what might be called an office capacity. A single lavatory with cold water tap only and a single stool with its access through a small partitioned finishing area were made to serve the needs for a restroom.

The drinking fountain consisted of a non-refrigerated bubbler (4" x 6"), wall mounted, with exposed plumbing. No bulletin boards existed and the only blackboard was a 4' x 6' board suspended from the ceiling by pulleys.

The building cooling facility consisted of one window mounted evaporative cooler of approximately 5,000 C.F.M. One small (ten pound) dry chemical fire extinguisher was located inside the entry door.

In the absence of stock and supply rooms, these materials occupied roughly one-fourth of the already limited instructional space.

Equipment consisted of twelve, small, two-station benches, three wood lathes, drill press, jig saw, portable routes and sander, sheetmetal shear, three bench furnaces and miscellaneous hand tools. No blade guard or belt guard existed for the table saw and it had a loosely hanging electrical junction box and wiring. It is commendable that power to machines was controlled secondarily from remote circuit breakers and switches and that pupils had to seek instructor permission for power to operate equipment. However, these remote electrical switch boxes were located in the partitioned finishing area contrary to most building codes. Also, ready access was not easily afforded the instructor in the event of emergency.

A two-way inter-communication system existed between the facility and the administrative office.

The instructional reference material consisted of four Delagrams and five teacher-owned textbooks. No pupil texts were required nor were any available. Six slide film sets in woodworking were owned by the school district. Windows were covered with masonite in order to project on the suspended blackboard.

It is commendable that all boys of the three grade levels observed were provided with an industrial arts experience by requirement.

Six classes were scheduled at the sixth grade level with average class size being 17 pupils. Classes met once weekly for a 65 minute period, during the school year. Instruction emphasized the individual project method in the area of general woodworking. While limited to the single medium of woodworking, it is commendable that small, short units or projects appropriate to the shorter interest span were utilized.

At the seventh grade level, five classes were scheduled with the average class size being 20 pupils. Classes met once weekly for a 90 minute period during the school year. The instruction was limited to woodworking utilizing individual project method.

Five classes of eighth graders were scheduled for a 90 minute period once weekly for the school year. Average class size was 20 pupils. The yearly instructional program was divided into three periods of twelve weeks duration providing for sheetmetal drawing, sheetmetal, and electricity successively. The individual project method prevailed.

At all grade levels, no budget existed for instructional supplies as pupils were charged for all materials utilized. These funds were then spent to replenish the supplies used.

It is commendable that one free period was provided the instructor on four days weekly, presumably for instructional preparation.

No custodial service was provided for the industrial arts facility.

Student interest in industrial arts was readily observable as some fifteen students eagerly devoted their scheduled recess to spend their time on their particular project activities.

Conclusions and Recommendations

The following recommendations are set forth as a means of assisting the Industrial Arts Program to develop a more meaningful series of experiences for the pupils enrolled:

1. The present program encounters a variety of severely limiting circumstances. It is felt that, in this community, a strong Industrial Arts Program, should be developed for the obvious general education values, but also for its important pre-vocational and occupational implications.

Accordingly, it is essential that a study be made, and a written plan of the scope and sequence of experiences in industrial arts instruction be established for sixth, seventh, and eighth grade levels. (See Point of View). Inherent in this program planning should be an obvious decrease in emphasis on general woodworking and a corresponding increase in emphasis in general metals, drawing and sketching, electricity, construction and automotives. The latter would not be an attempt to introduce auto mechanics at this level, but rather to introduce a unit in disassembly and assembly techniques followed by introductory principles of small internal combustion engine theory and operation for the eighth grade level.

2. The present physical facility is totally inadequate as regards function, health, safety, cleanliness, and appearance and it is recommended that it be removed from service as early as possible. In the interim, a table saw guard should be installed together with a belt guard.

3. Until new facilities can be constructed at the site of the new school, and contingent upon the time interval required, it is suggested that an instructor office and certain stock and supply storage facilities be provided in the central school building presently containing rooms 11 and 12. The building containing rooms 13, 14, and 15, by removal of partitions, could fairly adequately be developed as a multiple activities laboratory including a drawing, planning, and reference area. A screen-type fence adjacent to the north of this building would enable the introductory units suggested in power mechanics and construction.

4. Equipment appropriate for instruction in a more typical and balanced Industrial Arts Program will necessarily have to be acquired.

5. The program and plant development should be accompanied by an attempt to reschedule classes to enable industrial arts instruction on a twice weekly basis for not less than one hour meetings. This is particularly important for the sixth grade level. Some consideration should be given to discontinuing the practice of scheduling recess for the upper grade levels.

6. While pupils should continue to purchase some supplies used in the program, the program attempted should not be limited to pupil financial ability to purchase. A modest budget bearing a portion of the cost of instructional materials should be provided by the school district.

7. A program of regular acquisition of instructional materials, to be incorporated in the planning and reference center of the shop should be initiated. This should include texts, references, technical resource materials, as well as filmstrips, graphic material, and a wealth of material related to "occupational information" and the "World of Work". Instructional emphasis should then be given to stimulate their use by all students.

8. It is recommended that a group activity be made part of the industrial arts experience. As a class is led to study industry and its phases of research and development, design, marketing research, production organization, packaging and distribution, the class could be guided into organizing into comparable activities for the group production of some small project in quantity.

9. Finally, it is urged that the industrial arts and home economics teachers be encouraged to explore the areas of experience which each area might provide for the benefit, respectively, of girls and boys. Emphasis originally should be on *very short* units of *exchange* instruction of no more than a class period or so. Examples being electrical appliance safety and simple principles and maintenance taught for girls or selected food preparations or etiquette taught for boys.

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RECAPITULATION AND SUMMARY

THE EDUCATIONAL PROGRAM

Language Arts - Grades 1-3

The report indicates that the present program is heavily based on the mastery of skills in language and that it is heavily weighted with phonics and word-drill. This emphasis on limited areas of the language arts has led to a neglect of certain other types of language learnings such as oral and written language expression, and other uses of creative language. Needless to add, the relationship of language learnings to other areas of the curriculum such as art, social studies, science, music, and physical education would likewise need to be given attention.

The report further stresses that the major purposes of language instruction in Grade 1, 2 and 3 need to be identified in order to give unity to each day's activities, and each year's activities for that matter. Ways and means of achieving these objectives are specifically suggested in the body of the report.

It has been recommended that the program of reading instruction should provide more emphasis on reading for meaning. Also needed are certain adjustments of program content in order to implement the program in accordance with individual pupil maturity. An improved readiness program was recommended as well as certain additional physical facilities and materials. Certain changes in teaching procedures including the movement of furniture, have also been recommended in the appropriate section of this chapter of the survey report.

Social Studies - Grades 1-3

The survey staff ascertained that social studies was taught only incidentally in the Primary Grades of the Eloy School District. The need to organize the staff for the purpose of identifying the major purposes of the social studies in each of the several grades has been carefully pointed out. A program of in-service education for the entire staff has been recommended, which would ultimately lead to the development of a statement of scope and sequence (for all grades) in the social studies, together with certain recommendations pertaining to needed equipment and materials. In any event, the unit approach to the social studies has been recommended, in addition to certain changes in teaching procedures to include some provision for teacher-pupil planning and the allocation of specific tasks to each pupil in order to teach a greater sense of individual responsibility.

Language Arts - Grades 4-8

The need for the development of an all-district curriculum committee composed of teachers (and administrators) from all grade levels has been pointed out. Among the specific duties and responsibilities of such a committee would be:

1. To evaluate the present program of language arts instruction.
2. To identify major language arts problems that need to be solved.
3. To establish realistic objectives for the solutions of such problems and allocate the necessary responsibilities to the respective grade levels.
4. To determine the materials and equipment needed to further implement an effective language arts program.
5. To consider certain changes within each separate classroom, as well as changes in the total school organization, which might well enrich and otherwise improve the present program of the teaching of reading.
6. To report back to the faculty and administration on all aspects of the language arts program--together with recommendations for implementing recommended changes.

It is strongly urged that consultant help be provided to such a curriculum committee in order that the committee may have the qualified leadership and direction it needs in order to achieve success.

Social Studies - Grades 4-8

It was pointed out that, by and large, the social studies program in the middle and upper grades of the Eloy School District was largely textbook centered. The report contains a number of reasons for educators being wary of such an approach to this, or to any other area of the curriculum. The need for a study committee composed of teachers from several grade levels has been pointed out. This committee is needed to formulate the major objectives and develop a program of scope and sequence in a social studies curriculum for all grades. Additional responsibility for this committee would be the determination and procurement of additional equipment and materials, the development of sample resource units for each grade level, and the development of a community resources guide for use of all teachers in the school district.

As in the case of the social studies in grades 1-3, the survey staff recommends provision of consultant assistance to assist the study committee in its labors.

Mathematics - Grades 1-8

The report indicates the need for a number of different types of equipment, all of which have been identified in the report. Also recommended is the fielding of formal extension courses on "Mathematics for Elementary School Teachers", plus in-service workshops. The aforementioned workshop would be provided in order to lend support to an all-district mathematics committee composed of teachers and administrators. This committee's first major purpose would be to develop a written set of objectives in mathematics for each grade level. The absence of a sequential program, undoubtedly prompted this recommendation. The need for additional instructional help and support, materials and equipment, and consideration of some type of grouping policy, have also been cited in the body of the "mathematics" report.

Science - Grades 1-8

Among the information and recommendations found in the section dealing with Science education are items dealing with the following:

1. Recommendations concerning departmentalization science instruction in the upper grades, together with some suggested forms of team-teaching or exchange teaching at other grade levels.

2. The need for some specific changes in time allocation for science instruction in order to plan for daily instruction in science at all grade levels.

3. The need for an in-service training program for all staff members, to include the direct involvement of teachers in the use of equipment and the performing of experiments.

4. Specific recommendations relative to time allocations are found in the report.

5. The need for additional supplementary science textbooks and graded reading materials, together with the establishment of a science equipment center in each school for use by all teachers.

Art Education

A number of recommendations will be found in the chapter section on Art Education. Foremost, however, are two recommendations. The first refers to the need of a program of in-service education for staff members, and the second is a strong recommendation for the employment of an art teacher-consultant to work with staff members, particularly those in grades 1-5.

Music Education (Vocal)

Perhaps the most unique section of the survey report appears under this topic. A special recommendation, plus a nearly complete outline of a proposal, for obtaining Federal funds to support the program, is contained in this section. The special program recommended (with Federal support) is a 3-year music improvement plan designed to build a rich over-all program of music for the Eloy Elementary Schools.

A second important recommendation (whether or not Federal funds are obtained) pertains to the employment of an additional vocal music teacher for Grades 3-4-5 who would also give some group instruction to Grades 1 and 2. For details, however, please read the body of the music education report.

Music Education (Instrumental)

Although a number of recommendations will be found in the report, the major recommendation has to do with the possible employment of a full-time instrumental music instructor who would then be able to begin small-group and individual instrumental instruction at the fourth grade level, while continuing to give group instruction in the upper grades.

Home Economics

The section dealing with home economics contains many suggestions and recommendations intended to improve the present program of education in this area. Above all, however, the survey staff recommends that particular attention be given to the recommendation concerning greater breadth and depth in the program itself. For details, see the appropriate section of this report.

Physical Education and Health

It has been pointed out in the survey report that a written course of study is badly needed in order to give order, depth and meaning to the program of health and physical education. It has been further pointed out that work is particularly needed at the primary grade levels. Some provisions should also be made for handicapped children; a number of suggestions appear in the body of the survey report in the appropriate section. The need for some sort of assistance for teachers in the area of physical education at the primary level was very apparent to the survey team. It has been therefore strongly recommended that some effort be made to provide consultant services to teachers in grades 1-5.

The lack of adequate physical education equipment was apparent to the survey staff. The report contains a list of suggestions which, if followed, should bring the district to a level of adequacy in this respect. The administration and members of the Board of Trustees will be interested in the observations, commendations, and, above all, recommendations regarding "improved custodial services" desired or required in support of an adequate program of health and physical education.

Industrial Arts Education

The survey staff's special consultant in Industrial Arts Education strongly recommended that a written program of scope and sequence was badly needed in the Eloy School District. It was also pointed out that the present physical facilities for implementing a program of industrial arts are quite inadequate. Likewise, the lack of appropriate equipment--and enough of it--has been pointed out in the report. Careful attention to this section is recommended in order that the district may follow authoritative guidelines in order to bring the program of Industrial Arts Education to a more adequate--and typical--level.

Similarly, additional recommendations have to do with the need for class rescheduling and the acquisition of additional teaching materials to lend depth and enrichment to the program. A number of books, types of filmstrips, other materials, etc., are specifically cited for the benefit of the reader.

CHAPTER V

SPECIAL EDUCATIONAL SERVICES

INTRODUCTION

In order for the modern elementary school to function in a most effective and efficient manner, it is necessary that certain special educational services be provided for the pupils and staff members in the school. Among these important and highly desirable special services are library services, audio-visual services, and guidance services. This chapter contains separate reports relative to these three special educational services.

The collection of the school library today must contain not only books, but all types of instructional media. It must present a balance of the new and the old, the standard and the up-to-date titles, and a choice of materials in all subjects, both informational and recreational. The provision of adequate audio-visual services in today's elementary schools is a complex undertaking. Globes, maps, film strips, slides, films, recordings, radio, television, programmed instruction and many ready-made resources must be provided for use in the classroom. In addition, bulletin boards, chalk boards, flannel boards, sand tables, contour maps in three dimensions, diaramas, puppets, demonstrations, cartoons, posters, charts, diagrams, field trips, models, and pictures must also be made available or created by the classroom teacher for his use. In other words, a vast number of instructional materials and resources are required to effectively support the modern educational program.

Audio-visual materials and equipment are designed to help the teacher implement clearly defined instructional tasks. When these instructional tasks are clearly defined as part and parcel of a program of scope and sequence in the separate subject areas, a well organized program of audio-visual education can then become a most important, integral part of the school curriculum.

What is to be taught in the school has of late taken on added importance; particularly during the past decade the school curriculum has been exposed to the impact of the "explosion of knowledge". Nevertheless, the survey staff feels that a concern for what is taught in the schools should not be greater than the concern for the personal well-being of the individual child who is exposed to the learning environment in the classroom. The nature of guidance services implies that the individual child is-and ought to be-the primary concern of the classroom teacher. Effective guidance services emphasize preventive action, and facilitate teaching and learning. When one considers that elementary education is but a series of approaches aimed at meeting the unique needs of individual school children, a continuous and effective guidance program starting in the primary grades is absolutely essential for achieving effective educational results.

The survey staff therefore desires to set forth the point of view that special educational services - namely, library, audio-visual, and guidance services - are critically essential services which must be supplied in quality and quantity if the school's total educational program is to be truly effective.

LIBRARY SERVICES

Point of View

The school library in 1966 must provide each youngster with the opportunity to gain information concerning the world of which he is a part. Each youngster requires and deserves the opportunity to explore beyond the encirclement of his real experience and the delimiting environment with which he is identified. The school library providing a wealth of diversified materials permits the youngster to use all that mankind has thought, accomplished, or been, in his efforts to identify his relationship to his world and establish his individual goals.

The elementary school library is a functional and integral part of the school and the overall objectives of the school are its paramount concern. The library's reason for being is to further the learning of the children through its dual role of being both a service agency and a teaching agency.

The provision of a central library (and the centralized recording of the materials comprising it) makes information regarding the availability of specific items available and useful to all. Materials retained in the classroom restrict accessibility to them unless they are recorded in the various catalogs and records maintained in the centralized library.

A school library maintained in a community lacking adequate public library services faces a challenge and task to provide for library needs not experienced by communities having adequate public library service. Too often the only reading materials entering a household are those of the school library.

The concept of the librarian as a person well acquainted with educational resources intended to enrich and supplement all learning activities, is pregnant with tremendous potential for the educational enterprise which recognizes this function and provides adequately for its realization. Too frequently the well qualified teacher-librarian is viewed as a "study hall teacher", sole selector of books, cataloger of materials, dispenser of materials and jack of all trades, to the end that he cannot function efficiently as a coordinator who relates pertinent materials to the classroom learning situation and as an informal advisor to students to relate library materials to their individual interests and abilities.

The physical setting of the library is very important. A library is most effectively used when it is centrally located, provides a warm and inviting atmosphere, satisfies the requirements for adequate lighting, space, sound control and convenience of its users, contains rich resource materials shelved and displayed in an attractive and accessible manner, and maintains an air of orderly industriousness.

The attitude of the administration and teaching staff as expressed toward the library and its staff tends to create acceptance, on the part of the student body, of the library as an important aspect of the total school experience.

Various guidelines have been put forth to assist school authorities in organizing and administering high level school library services.

Suggested guidelines are listed below:

1. To provide varied types of materials in sufficient quantity intended to challenge students in the development of abilities to think independently, study effectively, attain desirable attitudes toward learning and research, and which will create a desire for lifetime learning resulting in continued use of the library and its resources as a laboratory for solving individual problems;

2. To provide a well trained, certificated teacher-librarian sensitive to the multi-faceted student and faculty requirement for meaningful library experiences; a friendly person capable of interpreting the library and its resources to the user;

3. To provide, in a warm and friendly atmosphere, library materials, organized in an accepted and orderly arrangement which are related to curricular and non-curricular needs and all levels of student ability, maturity, and interest, as evidenced by the students and faculty;

4. To provide a collection containing materials representative of the leading facets of controversial issues so that young citizens may develop, under guidance, the practice of critical thinking and reading;

5. To provide adequate facilities and budget provision so that the library may grow to meet the complex needs of the student body and teachers it serves.

Observations and Commendations

That a library is essential at the Eloy Elementary School District Central School has been recognized; however, it appears that at best, a token effort has been made to provide the resources, services, and personnel required to fulfill the basic requisites of an elementary school library. The severe limitations which exist regarding the library materials collection, the facilities (at the Central School as well as those in the new location) and the utilization of non-certificated personnel would suggest that the library situation as it now appears offers what can be best described as barely minimal service. It would be difficult to visualize how less effort could be expended and still indicate that library service was offered.

The provision of a minimum collection of books housed in the office of the Principal at Primary School cannot possibly be considered as a library; nor can one safely suggest that functional library service exists.

The situation existant at South School defies consideration as even minimal library service.

The investigator cannot be sufficiently laudatory in his evaluations of the incumbent clerk who has a task of such great magnitude that it warrants the engagement of a thoroughly experienced, well-qualified librarian. The present clerk was pressed into service some years ago and has attempted to provide library service for the youngsters who desperately require such experience. The library clerk is responsible for coordinating teacher and administration requests in book orders, maintaining records indicating circulation, maintaining all non-book materials and the machines associated with their use, creating displays, assisting youngsters in selecting reading materials, orienting youngsters and faculty to the use of the library, filling in for teachers during noon duty, selecting books to send to Primary and South Schools, making "masters" on a machine located in the library, processing library materials, preparing cards for the card catalog and developing bulletin boards.

The library clerk is to be commended for the attractive display provided in the library.

Three newspapers were available for use of the youngsters, the Arizona Republic, Pinal County Enterprise, and the Arizona Daily Star. However, during the course of the day no youngster attempted to use this important resource.

The library clerk was aware of the extremely obvious shortcomings of the library and was desirous of developing a quality and quantity of service which is obviously necessary. She was aware of the financial and space limitations and sensitive to the need for a trained person to reorganize the library in order that the reading needs of the youngsters may be satisfied.

In spite of the fact that certification requirements of the State of Arizona require that a qualified teacher have 18 semester hours of Library Science for employment as a Teacher-Librarian, the Eloy School District has not secured the services of a certificated teacher-librarian.

The Central School collection of books was not organized with regard to the well established Dewey Decimal Classification System which assures that books of like subject matter are shelved together. Instead the administration suggested each book be assigned a number beginning with one and ascending in order as other books are acquired. The result is that a book on chemistry numbered 100 may be shelved next to one numbered 101 which can represent any area of subject matter. The library clerk has realized the fallacies inherent in this poorly conceived scheme and has attempted to bring books of like subject matter or grade level together without consideration of the number on the spine of the book. As a result, it is safe to state she is the only one who is capable of locating the desired book.

The library clerk has attempted to develop author, title, and subject cards for inclusion in the card catalog; however, the subject headings are not consistent because a well established system such as Sears List of Subject Headings has not been utilized.

Aside from the sincerity and desire of the library clerk the magazine subscription list is the most commendable facet of the library program. A total of nineteen magazines related to pupil interest and need were purchased and displayed. The list of magazines purchased for teachers was composed of five. No periodical titles was bound nor was an Abridged Readers Guide to

Periodical Literature available.

A separate reference area was provided having seven tables and twenty-eight chairs. However, this area was not available to teachers or youngsters until after school inasmuch as a reading class occupied this space.

The materials shelved in the reference area were quite good and pertinent to the needs of teachers and pupils. However, the materials consisted mainly of sets. Few books were classed as reference and shelved in this area.

The reference area and its book materials and the furnishings comprised the most attractive area of the library.

The entire library provided forty-four chairs; however, because the reference area was no longer available for library use, the classroom teacher remained in the classroom and referred six youngsters at a time to the library for materials. The youngster had one opportunity to obtain a book per week.

The library clerk functioned as custodian of the textbooks loaned to the pupils. Textbooks too, were housed in the library.

The library clerk's estimate of books in the library was three thousand for a total enrollment of approximately fourteen hundred youngsters, or approximately two books per pupil. The current library budget is two thousand dollars or approximately one dollar forty-four cents per pupil.

Classroom collections at Central School were sub-standard and in many classrooms a set of encyclopedias was *the* classroom collection. In one classroom a 1954 edition of an encyclopedia was in use.

The observer questions many of the titles purchased for the library especially in consideration of the one dollar forty-four cents per pupil presently budgeted for library purposes. Five copies of the *School and Library Atlas of the World* had been purchased for classroom use. In perusing this work it became quickly apparent that, although published in 1965, many old maps were included. This costly reference work indicated that Algeria and Libya were French protectorates. Further, *Classen's History of Professional Football* ($12.50), *Spicer's Cycles of Conquest* ($12.50) and Mann's *Politics of Water in Arizona* ($6.50) had been purchased. The observer suggests that because the budget allowance is sub-standard, titles such as the above should not be considered for first purchase.

Book purchases must be planned and the book purchase program must have an evenness about it as it satisfies pupil and teacher needs for book materials in all areas of the curriculum or pupils' interests. Specific courses provided for librarians, supplementing classroom teaching experience, prepares librarians (in concert with other faculty) to develop and engage in a purchasing program which satisfies these needs. The Eloy School District library clerk is attempting to purchase materials without the assistance of basic bibliographic tools which indicate fully the newly published materials, grade level, interest level, cost, publisher and generally a review of the book and its' pertinence to the area of interest of the child and his curriculum. A selected list of the best known tools is included in the bibliography which follows.

The book collection was not inviting in appearance because the services of a professional book binding service had not been utilized. All repaired books had been mended (inexpertly and unattractively) in the library. Further, no organized plan of "weeding" or discarding had been employed to remove out-of-date or physically defective books from the shelves.

Paperback books, which have recently become indispensible in school libraries, were conspicuous by their absence.

The Primary School collection of approximately seven hundred fifty books for six hundred thirty-one pupils was arranged in an accession number order also. This collection was available only to teachers in the principal's office. The Central School library clerk was responsible for this collection also.

At South School approximately seventy-five books were available (in a multi-purpose room) for one hundred ten youngsters.

Conclusions and Recommendations

At a time when surrounding school districts are moving into consideration of unifying library book materials and audio-visual learning devices the Eloy Elementary District should be aware of this desirable program and, at the same time, plan for the development of a library program and collection which can assist the school to meet its objectives. The elementary school library can make a valuable contribution to the school curriculum by facilitating the multiple-materials approach to learning. The following recommendations are basic, and rather obvious, but essential to upgrading the library so that it may adequately serve the pupils and the teachers.

Personnel

An elementary school librarian is a teacher and as such has a teaching role -- as a special teacher in the effective use of books and the library. The efforts of the librarian should complement and supplement what is being taught in the classroom.

It is recommended that a certificated teacher-librarian for the "junior high" be employed, if possible, in advance of the move to the new site. It is recommended also that a qualified teacher-librarian be employed to remain at Central School to develop a meaningful program and resources for that school and the others.

Library Program

1. The Library program for the Eloy Elementary District must supplement, enrich, and extend the basic instructional program while recognizing the problems generated by family and community disorganization. The Eloy Elementary District should, because of the number of disadvantaged youngsters involved, develop a program which will satisfy the

multi-faceted needs of the multi-problem child as well as the youngster who has fewer problems and is more favorably oriented.

2. The library program should provide for individualized reading guidance based upon the ability, interests, and needs of each child.

3. The meaningful library program provides for formalized instruction where certain basic and specific library skills are taught to groups of youngsters. Ideally, the groups come to the library periodically, at a regularly scheduled time, accompanied by the classroom teacher. In her role as a teacher the teacher-librarian introduces the pupils to the exciting world of ideas, facts, and information comprising man's knowledge and represented by the library collection.

   Basic to the youngsters' understanding of the library as a source of information is a knowledge of the orderly arrangement of the books in the physical setting and an understanding of the elementary principles of locating a book through use of the card catalog.

   The objective of instruction in, and, use of, the card catalog is to suggest that a systematic way to locate a particular book is through the author, title, and subject approach. This instruction may properly begin in the middle grades and continue in greater depth through the upper grades.

4. Also recommended as integral parts of the library program are the following:

   a. Learning to use all parts of the book;

   b. Learning to use dictionaries, encyclopedias, annuals, almanacs, yearbooks, atlases and maps;

   c. Learning to use special reference books in certain areas of the curriculum; and

   d. Developing skills in selecting, organizing, analyzing, interpreting and utilizing information.

5. In order to establish and support a library program it is necessary to develop a collection of library materials composed of fiction and non-fiction books representative of all areas of the curriculum and pupil interests. The collection should include picture books and dictionaries, biography, reference materials, magazines and indexes, pamphlets, maps, pictures and related non-book materials including films, filmstrips, recordings, models, charts and realia.

The above program is intended to be compatible with the philosophy and objectives of the school; therefore, it is recommended that desirable objectives and courses of study for each grade level be developed in an attempt to establish a sequential program for all grade levels.

Budget Provisions. Standards recommended by the American Association of School Librarians[1] have been established for all areas of school library service and will be referred to in the following text.

The accepted minimum standard for purchase of new book materials is four dollars per student per year. This figure does not include magazines or binding, supplies, encyclopedias, dictionaries or materials used exclusively in the classroom. These standards recommend that a school having 200 students provide a collection of 6,000 to 10,000 books. These standards are qualitative and imply that a student body of 200 can make effective use of a collection containing 10,000 books.

The recommendations for the minimum number of current magazine subscriptions follows:

In grades K through 6-----------25 titles
In grades K through 8-----------50 titles
In junior high schools----------70 titles

A minimum of 5 titles in the areas of librarianship and instructional materials.

The recommendations for the annual budget suggest that an expenditure of $4.00 - $6.00 per student should be made in schools having 250 or more students.

Further it is suggested that a minimum of $2.00 per student be allocated for the purchase of audio-visual instructional materials.

Regarding personnel the above standards recommend the employment of a minimum of one librarian for each three hundred students or major fraction thereof, to be supplemented with one clerk for each six hundred students, or major fraction thereof. Obviously, Eloy School District should make every possible effort to at least make a start toward achieving at least minimal standards.

The observer was advised that a sum of money was to be secured under Public Law 89-10 for purchase of learning materials. It is recommended that assistance, in the form of guidance, be sought from a consultant or from the Arizona Department of Public Instruction regarding pertinent and available materials to be purchased. It is advisable that the services of a professional cataloging organization be secured so that the materials will be organized in accordance with the Dewey Decimal System of Classification. The cost of the above services will prove nominal and the result will provide the nucleus of a well-organized and meaningful collection.

It appears that a meaningful library program can be planned and developed if a qualified, certificated, teacher-librarian is employed, budgetary provisions for new book purchases are increased to the minimum level of four dollars per student, and a functional multi-faceted library program is developed so that the library may act as a service and a teaching agency.

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[1] American Association of School Librarians. Standards for School Library Programs. Chicago, American Library Association, 1960.

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AUDIO-VISUAL EDUCATIONAL SERVICES

Point of View

A glance at the Table of Contents of a typical textbook in audio-visual education will reveal that a rather large number of materials and procedures is subsumed under this heading. Globes, maps, film strips, slides, films, recordings, radio, television, and programmed instruction are some of the ready-made resources. Bulletin boards, chalkboards, flannel boards, sand tables, contour maps in three dimensions, dioramas, puppets, demonstrations, cartoons, posters, charts, diagrams, field trips, models, real things, and pictures are some of the instructional resources which teachers create.

In the world of educational practice today, there is an increasing concern about the goals or objectives of teaching. No longer are thinking educators content to bring in teachers' manuals, curriculum guides, and instructional materials and then hope that somehow or other "somthing good" will happen. Instead, educators are asking, "What kind of pupil behavior do I want, and what materials and procedures do I need to use to insure the development of this behavior?" It is believed that this emphasis is fundamental to progress in any school system. It is especially pertinent to the field of audio-visual education, where it is all-too-easy to equate an impressive inventory of equipment and materials with quality education.

Because it is a fairly simple matter to create a demand for audio-visual wares, we are in danger of being lulled into a false sense of security. This danger is especially high in these days when Federal funds have suddenly made the purchase of new kinds of materials and equipment a reality rather than a hope. It is highly possible that an administrator, a supervisor, or a faculty may develop a fixation on equipment or materials, at the same time forgetting that the first essential of the teaching process is to determine the instructional task which the equipment and materials are to implement.

Increasing the circulation of films, training more and more teachers in the use of the overhead projector, gaining approval for larger and larger portions of the budget for audio-visual purposes -- these are not necessarily symptoms of a good program. On the contrary, schools have been observed where so much effort was being directed to the accomplishment of such surface objectives that seemingly no one was concerned with the question which the still, small voice within us was asking: "What are the pupils supposed to be learning?"

Audio-visual materials and equipment must help the teacher implement _clearly defined instructional tasks_. What is it the teacher wants to do? What are his objectives? What will the pupils be doing when they have attained these objectives? How will they differ from what they were when they began the instructional task? These are difficult questions, and the audio-visual specialist is far less likely to achieve fame and popularity if he attempts to solve them than if he goes about crusading for increased use of projectors, overheads, recorders, and teaching machines.

No matter what area or age level is dealt with, this remains true: _it is only to the extent that we succeed in defining the instructional task that_ *we are qualified to recommend an instructional system*. Antecedent to any recommendations regarding the use of materials and methods, audio-visual or other, is the clear and unmistakable definition of objectives in terms of pupil performance. To proceed in any other direction is to ignore the purpose of education in our society.

When the place of audio-visual materials and procedures in our school system is considered, it would be wise to reflect upon the words of Lord Dunsany: "There is a great tendency nowadays to place technique above inspiration and, if the notion spreads, we shall have diamond cutters valuing their tools more highly than the diamonds, with the result that, as long as they cut them in accordance with the rules of the craft, they will cease to care whether they cut diamonds or glass, and then they will cease to know".

On the other hand, there is no doubt that when a good teacher knows what he wants to accomplish, his teaching task becomes easier, more effective, and more efficient when he uses audio-visual materials and procedures wisely. There is, then, a kind of "chicken or egg" question facing good school systems everywhere:

1. There is no point in giving teachers huge amounts of audio-visual equipment and material if they *don't care* to use it or if they *don't know how* to use it to implement soundly conceived teaching objectives. In other words, why buy good tools if you don't want to or don't know how to cut diamonds?

2. Good teachers cannot capitalize on their potential for becoming better teachers unless high standards are maintained with respect to the availability of good instructional media. In other words, how can the individual who wants to cut diamonds and who knows how to do it perform with ever-increasing effectiveness unless he has good tools?

This report, therefore, recommends that the Eloy Elementary District attend to a two-fold problem in developing a sound audio-visual program:

1. The District should develop a *long-range program* for the *acquisition* of equipment and materials.

2. The District should plan for a systematic in-service training program which will be conducted concurrently with the development of the equipment and materials resources.

Observations and Commendations

In a one-day observation a consultant must limit himself severely. Many excellencies which were observed deserve mention. Many other excellencies exist, without a doubt, but the consultant was not privileged to observe them. These kinds of things, then, will not be detailed because they fell outside the scope of the area on which the consultant felt it necessary to concentrate.

In order to achieve some degree of depth, an a priori decision was made to study two important factors:

1. Utilization practices of teachers

2. Equipment and materials standards

The attitude of the teachers seemed to be both realistic and professional. Almost without exception they voiced the sentiment that, although the inventory of resources and materials has been meager in comparison with an "ideal" district, much has been accomplished in a short time and much more can be expected in the future. Many teachers apparently know what they want to teach and frequent examples of ingenuity and creativity in providing an enriched classroom atmosphere despite the handicap of a limited supply of audio-visual resources were in evidence.

Along with these examples, however, there was a frequent manifestation of an expectation that once the Federal monies begin to flow, things will be easier. This attitude is understandable, even though it is based on an incorrect assumption. The addition of many new materials and kinds of equipment will not necessarily make teaching easier. Rather, it will increase the teacher's responsibility simply because the teacher will now have the opportunity to do bigger and better things than ever before.

Conclusions and Recommendations

Inventories were extremely substandard at the time of the survey visitation. Administrators were apparently aware of the types of Federal support available for the purchase of audio-visual materials and equipment. Even assuming that the pending proposals will be funded in toto, there is no assurance that the district will be able to reach an acceptable standard. The implication is clear: the district must be willing to pay for at least a portion of the program if audio-visual resources are to make the contribution they can make.

What are these minimum standards? The National Education Association's Department of Audio-visual Instruction has compiled a number of specifications of standards. Copies have been delivered to the district office. It should be noted that these standards are not drawn up by commercial organizations anxious to maximize their sales, but by thoughtful educators who are aware of both the financial limitations of schools and of the needs of boys and girls. These educators have attempted to strike a careful balance between these two factors. Their recommendations should be considered seriously because they are the best available for American education in 1966.

The best way in which the Eloy schools could use these standards would be to conduct an intensive self-evaluation. Existing resources should be inventoried and the needs of the district assessed in the light of recommended standards. A long-range program of acquisition should be set up. Priorities should be given to those items which the teachers can best use immediately. Other items should be scheduled for purchase as the in-service training program of the district enables the teachers to obtain the additional necessary "know-how".

Several specific recommendations relating to equipment and materials deserve attention because they relate to situations peculiar to our part of the State.

1. Instead of purchasing an extensive film library, consideration should be given to the feasibility of borrowing films which might be shown only a few times a year. Rental service and/or membership in a cooperative film library should be studied. Charles Ritchie at the AV Center of the University of Arizona and Joel Benedict of the AV Center at Arizona State University can provide needed information concerning costs and benefits.

2. A careful study of the advisability of using free (or sponsored) films should be made. Too often these films are of minimum educational value because of the fact that it is extremely difficult for the teacher to schedule them at the "teachable moment", and because they seldom relate specifically to the objectives which a teacher wishes to achieve. Even the term "free" is highly misleading. These films *do* cost money -- some, more; some, less.

3. The most important consideration lies in the problem of personnel. Indeed, all the recommendations which follow are to a considerable degree dependent upon this recommendation if they are to be implemented.

   The District should employ a professional audio-visual specialist immediately. A full time person would be most desired but a half time specialist could start things moving in the right direction. This specialist should be a professionally trained director (with not less than a master's degree in audio-visual education) who can meet with teachers, supervisors, and principals as his equals. Only under such conditions will it be possible to do the kind of long-term planning which is so much a part of every administrator's duty. Additionally, the close correlation of the audio-visual program with curriculum development demands a professionally trained leader who has had classroom experience. In addition, he needs administrative ability. Above all, he must be trained in the development and production of instructional materials and in the nature and conditions of human learning. If there is not a person within the District who presently possesses these qualifications, the District must be willing to recruit. It is quite customary to think in terms of a salary above that of a classroom teacher when looking for this kind of individual.

   It should be emphasized that as Federal funds accrue, the demands of the District in the audio-visual area will be substantial. This, above all else, is the compelling reason for making this recommendation as strong as it is.

4. Though many examples of teaching excellency were noted, there is an apparent need for a well-directed in-service training program. There is little doubt that improved attitudes follow the growth of knowledge, and that improved practices follow improved attitudes. A soundly conceived in-service program could do much to increase teachers' knowledge

in the area of instructional materials, with a resultant improvement in attitude and practice. Whether this program should be completely district-conceived and administered or whether it should draw on the resources of a university extension program in audio-visual education is a consideration which lies beyond the scope of this report. This program must be tailored to educate and train teachers to use the new materials and equipment as they are purchased. The mere purchase of materials and equipment will do little, of itself, to improve the education of boys and girls in the Eloy School District.

5. Examples of teaching excellence should be displayed in lobbies and teachers' rooms through use of bulletin boards, charts, photographs, displays, etc. This should have the effect of stimulating good practices among teachers, as well as providing a most valuable public relations medium for publicizing what the District is doing.

GUIDANCE AND SPECIAL EDUCATION

Point of View

Guidance in the Elementary School. Guidance as an intrinsic aspect of good teaching has been the subject of numerous essays, conferences, and discussions by administrators and classroom teachers. Numerous cultural and academic factors point to the need for guidance programs at elementary school levels. Gowan has enumerated a number of principles which point to the importance of effective guidance procedures.

1. School guidance seeks to help children solve their developmental tasks on schedule.
2. School guidance seeks to individualize the curriculum according to the child's needs and capacities.
3. School guidance recognizes the primacy of cognitive competence in influencing emotional health and over-all orientation to reality.
4. School guidance is also concerned with the promotion, establishment, and maintenance of sound social relationships.
5. School guidance seeks to be permissive rather than directive, non-punitive rather than punitive, listening rather than talking, and ameliorative rather than threatening.
6. School guidance seeks first the child's welfare.[1]

Without a point of view and procedural knowledge, guidance as a process is ineffectual. At elementary levels, school personnel guide in a variety of ways by providing appropriate learning conditions for children with varying cultural and academic backgrounds; by assisting children in coping with difficult social and learning situations; and by maintaining a school environment conducive to good interpersonal relations.

Counseling in the Elementary Schools. The specific role of the elementary school counselor has been widely debated in recent years as professional persons have become increasingly aware of the demand for elementary school counselors. Of this Faust has said, "Only one certainty of agreement appears to have been reached: the elementary school counselor should not be simply an image of the secondary school counselor".[2] While the function of the elementary school counselor may not yet be conceptualized and agreed upon by counselors, counselor educators, and others, the elementary counselor model discussed by Wrenn,[3] Faust,[4] and others has had a significant impact on counselor education, counseling practices, and progressive public school programs in general. In these discussions, the counselor's emphasis is on the intellectual functioning of the child within a counseling framework which stresses the curriculum. Discussing programs of this type, Faust has written:

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[1] John Curtis Gowan and George D. Demos, Eds. *The Guidance of Exceptional Children* (New York: David McKay Company, Inc., 1965), p. 2.

[2] Verne Faust, *Plan of Operation for a Counseling and Guidance Training Institute to be Conducted by Arizona State University*, quoted in *Developments in Counseling* edited by Daane, Combs and Wrenn, Arizona State University, Bureau of Educational Research and Services, Bulletin No. 18, 1965.

> The elementary school counselor education program is designed on the contention that, if a new world is constructed for children in the classroom where students feel relatively safe, the central nervous system of the organism will function at high levels of efficiency. As a by-product, positive, efficient identifications will occur with appropriate societal members, accompanied by a self-searching, curious, creative exploration of the world of work, politics and economic responsibility, so that decision-making may be undertaken effortlessly, or relatively so. Entire guidance and counseling systems or organizations constructed to assist students in choices or decision-making would be practically unnecessary. Certainly, less public school personnel, with less elaborately expensive training, would be necessary to provide students information and a relationship in order to arrive at appropriate career and social choices. It is contended, to reiterate, that individuals who function efficiently (though not pseudo-efficiently) at intellectual levels will also be maximally effective in other areas of human behavior.
>
> The elementary counselor education program is more central to what is traditionally called the curriculum core of the school, where the essence of learning, of cognition, occurs. It is less peripheral, less an adjunct to the central stream of the educative process than that represented by the secondary school counselor's role. It focuses less on advisement, less on career and educational planning, less on tests, measurements and program planning. Also, less emphasis is placed on record keeping.
>
> Further, it functions with less emphasis on direct student contact and work with individuals. While the individual is considered to be of supreme worth, it is maintained that economically his educational welfare can be effectively realized only primarily through teachers and various types of group experiences, all within a particular kind of curriculum design.
>
> The elementary counselor model presented here is less child-treatment oriented, and almost exclusively preventative in nature. Intervention in this treatment, procedures, techniques and roles are but a minor working part of the model.

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[3] Ibid.

[4] Ibid.

> Work with parents and community agencies, while a part of the program, is, by comparison, of much less significance than the central focus on curriculum and the personnel responsible for developing, managing and carrying out the curriculum in action.
>
> The elementary program focuses more on teachers and the effects of their relationships, subject-matter content, and methods on the learning apparatus of the child. It economically spends more attention on persons, such as teachers and administrators, who will affect, either directly or indirectly, large numbers of students. When working with students it is more often economical to do so with groups, rather than individuals.
>
> Instead of testing, program planning and record keeping, the elementary counselor should be involved in the most economically crucial places, lending his professional role to building a new world for children, making it safe, and so freeing intellects of children to learn.[5]

The guidance and counseling needs of the Eloy Elementary District were examined within this framework.

The Education of Exceptional Children. The term "exceptional children" represents many different medical, educational, and psychological groupings of children. In professional literature it is sometimes used to describe large numbers of children who differ from the so-called normal to the extent that special class placement or supplementary services will be required if maximum benefits from their school experiences are to be realized. A concept of "normality" is essential if descriptive categories such as this one are to have meaning, and "normality" must always be viewed as a relative term. Sub-categories of exceptional children may be described as (1) intellectual (retarded or gifted), (2) physical (general physical conditions, specific health problems, visual limitations, and disorders of communication), (3) socially and/or emotionally disordered. In recent years there has been the tendency to include culturally disadvantaged (deprived) children as a separate category of exceptional children although a high proportion of children classifiable in the above sub-categories are to be found among those commonly designated as "disadvantaged".

Incidence. Incidence figures cover various categories of exceptional children. Reported numbers of cases vary with the criteria used for selection, e.g., age levels, test scores, etc. Often-quoted statistics concerning estimated numbers of exceptional children (Mackie, Williams, and Hunter) are included in a monograph edited by F. E. Lord and Robert M. Isenberg.[6] These data appear in Table I essentially as they are presented in their publication.

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[5] Verne Faust et al, *Paradise Valley Elementary Schools Report of Survey*, Published by the Bureau of Educational Research and Services, College of Education, Arizona State University, 1965.

[6] F. E. Lord, "The Exceptional Child in the Public School", *Cooperative Programs in Special Education*, F. E. Lord and Robert M. Isenberg, editors (Washington, D.C.: The Council for Exceptional Children, NEA, 1964), p. 5.

TABLE I

ESTIMATED NUMBER OF SCHOOL AGE CHILDREN AND YOUTH IN NEED OF SPECIAL EDUCATION, BY AREA OF EXCEPTIONALITY, UNITED STATES,[a] 1957-58

Area of Exceptionality	Estimates of Prevalence[b]	Estimated Number of School Age Exceptional Children[c]
Total	12.468	5,209,400
Blind	.033	13,800
Partially seeing	.06	25,100
Deaf	.075	31,300
Hard of hearing	.5	208,900
Speech impaired	3.5	1,462,400
Crippled	1.0	417,800
Special health problems	1.0	417,800
Emotionally disturbed or socially maladjusted	2.0	835,600
Gifted	2.0	835,600
Mentally retarded	2.3	961,000

[a] Includes 48 States and the District of Columbia.

[b] Estimates are for the major or primary type of exceptionality in each child, although it is known that some children require special education for two or more exceptional conditions, such as mental retardation and a speech impairment.

[c] Based on an estimated 41,782,000 children 5 to 17 years of age on July 1, 1958. *Illustrative Projections of the Population of the United States, by Age and Sex, 1960 to 1980*. U. S. Bureau of the Census, Series P-25, No. 187, November, 1958. Detail does not add to total because of rounding.

The Culturally Disadvantaged--a Special Group. Few problems are as intricate and varied as those associated with educational provisions for the culturally disadvantaged.[7] Because these problems require the best thinking of educational specialists of all types, the problems belong to general education. In that disadvantaged children frequently manifest the same behavioral and education problems as the various sub-categories of exceptional children, e.g., the mentally retarded, emotionally disturbed, etc., and in that large numbers of exceptional children included in "traditional" categories of exceptionality are to be found among the poor, the neglected, and the deprived; these problems have been highlighted by special educators.

While it is clear that the schools have not been traditionally charged with the responsibility of solving problems of poverty and neglect, it has become increasingly apparent that we are responsible for assisting students in overcoming learning disabilities or deficits, many of which may be traced to unmet biological needs, inadequate cultural stimulation, and consistently inadequate total care. Literature of all types is replete with essays concerning the responsibilities of specific individuals and groups as they relate to the development of children, e.g., the role of the teacher, the parent, etc. The idea is sometimes expressed that some professional groups or institutions may have assumed responsibilities which were once those of the parents, and that attempts to "take over" the responsibilities already assigned to the parents can have adverse effects on family morale and motivation.

Logically, parents must provide for the needs of their children to the extent that they are economically able to do so. It is unrealistic, however, to expect that children will meet educational demands unless basic needs are consistently met or in some way eventually satisfied through compensatory measures. The importance of minimal need satisfaction has been emphasized in a publication edited by Bloom, Davis, and Hess and based on papers contributed by participants in a research conference on education and cultural deprivation.

> We have listened to many anecdotes about "heroic" school principals who provided special services such as dental care, clothing, and food either on their own or in violation of school regulations. While we might applaud such efforts, we are inclined to believe that these are the exceptional and that many children must do without because there is no way in which such basic needs can be met within the present school regulations.
>
> That children should struggle to learn under such handicaps should be regarded as a serious indictment of school regulations and community morality. No child should be permitted or expected to learn under such adverse circumstances as hunger, fatigue, disease or impaired bodily functions. If it is the school regulations which are at fault, they must be changed. If it is the lack of food and other provisions,

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[7] Benjamin S. Bloom, Allison Davis and Robert Hess, editors, *Compensatory Education for Cultural Deprivation* (New York: Holt, Rinehart and Winston, Inc.). 1965, *passim*.

action at the community, state, or national level should be quick and adequate.[8]

Teachers and those in related professions have long been aware of discrepancies between the expected and the established levels of educational achievement among individual students. It is apparent that many students are not able to take advantage of certain educational opportunities available to them because of general and specific learning disabilities. Disadvantaged children may find their initial learning deficits characterized by low-level communicative skills, inferior perceptual-motor skills, etc., magnifying over a period of months or years. In some aspects, particularly in reading and quantitative skills, the cumulative effect of inappropriate school practices results in widening the gap between expected levels of functioning and actual levels of performance.

Deprived children may present special educational problems because of numerous and different reasons. Among these are: limited opportunities for environmental stimulation basic to perceptual and linguistic development; less emphasis at home or in the immediate surroundings on the acquisition and extension of language; low priority given many activities which are basic to "formal learning"; and the fact that school activities and expectations are very different from experiences at home.

Implications for the Schools. Children who cannot profit from an existing school curriculum because of specific handicaps or conditions associated with cultural deprivation must be educationally accommodated if we are to meet our society's increasing demand for greater educational opportunities for all persons. Programming for exceptional children may take an infinite number of forms. At elementary levels, a guidance point of view is basic for the numerous specialized efforts which may be required for various sub-categories of exceptional children. Specialized services frequently take the form of "special classes", but it is entirely possible that appropriate services for exceptional children particularly in rural areas with limited facilities and personnel may require some unique approaches, e.g., resource teachers, consultants, inter-district programming, etc., not necessarily in the image of programs and services in urban schools.

Observations and Commendations

With the exception of a special reading program, there were no organized special education services in the Eloy Elementary District. While there appeared to be administrative support for a guidance point of view, there were no plans reported for initiating a counseling program, special education classes, or specific programs which might be classified as special education services. The special reading program was new and had not yet been integrated into the total education program. It should become increasingly effective over an extended period of time providing there is continued support from the professional staff and if teachers, materials, and equipment continue to be carefully selected. Teachers and administrative personnel are to be commended for their attempts to provide individualized instruction for exceptional children within their regular classes. An air of warmth and friendliness pervaded many of the classes visited. Classroom teachers and the nursing staff appeared to be rather effective in coping with chronic health problems of children in their regular classes, e.g., asthmatic children with minor crippling conditions, defective vision, etc. The communications between the nursing staff and other school personnel appeared to be fairly effective in isolating and identifying potentially more serious physical conditions although it seemed clear that one nurse was not sufficient for a school population of this size.

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[8] Benjamin S. Bloom, Allison Davis and Robert Hess, editors, Compensatory Education for Cultural Deprivation (New York: Holt, Rinehart and Winston, Inc.), 1965, p. 10.

A limited testing program had been implemented in this district. Consistent with modern practices, there was not an "over emphasis" on testing at elementary levels. In recent years many schools have justifiably deemphasized large-scale testing and evaluative programs at elementary levels. This is not to imply that routine and specific testing is of no value. A wise use of testing and evaluative procedures specifically related to the demands of the curriculum and the problems of students are to be considered important; e.g., identifying specific handicapping conditions, evaluation of readiness, etc. In this district there was no estimate as to how existing test data were to be used. Furthermore, there was no indication that test data were used to identify exceptional children who might be in need of special education. There had been no comprehensive survey to identify categorically the exceptional children who might be in need of various forms of assistance. Instances of periodic visual screening were reported as well as efforts to provide some visual care; e.g., glasses, referral for special medical help, etc. A few of the more severely retarded children were reported to have been referred or transferred to outside educational sources.

Although no special education services existed in the district, there appeared to be large numbers of children enrolled who might profit from special services or curriculum modification. Typical special education classes and services, however, may not be feasible for this district in that this is not an "urban type" elementary school population. Programs designed for urban school populations might not therefore be appropriate. Program expansion in the special service areas should take into account factors such as: school population characteristics; adequacy of existing facilities; sources of financial assistance; utilization of existing professional staff; additional personnel needs; and any changes in school population, (e.g., size, socio-economic levels, etc.); facilities; community attitudes and related facilities, which may have recently occurred or might be anticipated.

Conclusions and Recommendations

1. It is recommended that a guidance program for this district be considered. Modern programs require extensive preparation and orientation prior to implementation. A good beginning might involve consultation with university personnel and in-service preparation of this district's administration and teachers.

2. In-service programs designed to assist the district in planning new services for the school population might be particularly valuable in developing unique educational programs and in providing the preliminary orientation for teachers interested in entering fields of special education.

3. In the event that it is the district's decision to initiate special classes or services for one or more categories of exceptional children, e.g., mentally retarded, physically limited, emotionally disturbed, etc., it is suggested that a comprehensive school-community survey specifically designed to identify total numbers of children with handicaps and learning disabilities, be undertaken. In certain cases, financial support for comprehensive surveys may be available through the United States Office of Education in cooperation with university programs of special education.

4. Investigate the possibility of additional financial assistance through recently enacted federal and state legislation. Detailed information of this type is available through the State Departments of Public Instruction.

5. Following are specific suggestions for program development in special education.

   a. Plan for organizing and administering special education services. A comprehensive plan should include:

      (1) philosophy of special education.
      (2) availability of agencies and related services as a basis for feasibility.
      (3) criteria for determining who is to be included in the program.
      (4) a specific plan for coordinating all services which might be included under special education.
      (5) a plan for providing a sequential program of services, e.g., elementary levels to secondary school.
      (6) establishing priority for services to be implemented.
      (7) defining responsibilities of professional personnel, including administrators, regular teachers, and special class teachers.

   b. Begin immediately when a child enters school (first grade) to determine developmental levels in regard to language and perceptual development.

   c. Consider "experimenting" with a number of different approaches to learning, e.g., emphasis on language and reading, emphasis on providing incentives, etc., in various classes at comparable grade levels. Under these conditions children might be grouped on the basis of specific behaviors, readiness skills, etc., rather than using traditional criteria, e.g., chronological age, mental age, etc.

d. Where exceptional children (including culturally disadvantaged) are involved, emphasis should be on strengthening relations between home and school. Special programs need as much reinforcement from parents and other significant persons as is possible.

e. For children in the upper grades, effort should be made to decrease any apparent learning deficits in individual children. Deficits are cumulative. Children who experience consistent difficulty with initial school requirements often experience increased failure unless changes in procedures and/or placement are forthcoming.

f. Consideration might be given to sacrificing some aspects of the curriculum (in individual cases) in order to bring students with learning disabilities up to predicted standards of performance. Concentrated clinical instruction cannot always be "added" to an already overcrowded curriculum.

In summary, it is felt that a guidance program should be implemented in this district, but that a firm basis for program development be first established. It is also suggested that attention be given to providing special education services not now available to students in the district and that a comprehensive survey be made to identify numbers of exceptional children in the community and in the school. It is suggested that special education needs for the Eloy Elementary District may be somewhat unusual in comparison to "urban type" districts in nearby cities now offering special classes and other services. It is felt that this district should seek to establish the type of special education programs which would serve large numbers of children in regular classes and in special classes with particular attention given to somewhat unique grouping, enrichment, and remedial procedures.

Several examples of excellent teaching were observed. It is apparent, however, that in the almost total absence of special education services, some immediate attention should be given to this aspect of the total curriculum.

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RECAPITULATION AND SUMMARY

SPECIAL EDUCATIONAL SERVICES

Library Services

A number of recommendations appear in the body of the survey staff report all designed to assist the school district to improve its program of library services. Foremost among all the recommendations is one pertaining to the procurement of qualified, certificated, library service personnel. Whereas the library consultant specifically recommended the employment of a teacher-librarian for the new upper-grade school, plus a certificated teacher-librarian for Central School (who would also give assistance to the other lower grade schools) the survey staff suggests a possible alternative of employing educational aides in each of the lower grade schools. These aides, serving under the direct supervision of the teacher-librarian, could possibly give extensive library service at a minimum of cost to the district.

The great need for much additional library material--fiction and non-fiction--has also been pointed out in the report.

Recommendations concerning the provision of annual budgeted district funds--plus obtaining federal funds for which the district is presently eligible--are highlights. The need for specific standards in all areas of library materials and services has also been pointed out, together with recommended steps for achieving satisfactory levels in these areas.

The survey staff strongly recommends that the section on library services be carefully read by all members of the school staff and members of the school board.

Audio-Visual Education

The chapter section on audio-visual education contains important recommendations concerning the need for trained personnel and then spells out the important responsibilities to be carried by such personnel.

Although recommendations pertaining to personnel are perhaps the most important, additional recommendations pertaining to the need for an audio-visual in-service education program to help teachers develop improved group and individual instructional techniques are deserving of careful consideration.

The need for quantities of additional materials and equipment is also pointed out, together with suggested ways and means for establishing a program of long-range procurement designed to bring the District up to reasonable standards. A challenging program of self evaluation by the school district staff of the total audio-visual education program has also been recommended as part of a broad program of staff in-service education.

Guidance and Special Education

The absence of an organized and established guidance program has been recognized and specific recommendations for establishing the beginnings of an effective guidance program have been included in the appropriate section of the survey report. A comprehensive program of staff in-service education has been also suggested, along with specific recommendations for the progressive development of a school district program of special education for exceptional children. The possibilities for developing classes for the mentally retarded, physically handicapped, emotionally disturbed, and other types of exceptional children are dealt with in some detail. Recommendations for actually implementing a program of special education in depth may be found in the report, including guide-lines for investigating the availability of federal funding assistance to the district to support the most important--and often neglected--educational work.

CHAPTER VI

PUPIL PERSONNEL SERVICES

INTRODUCTION

A child's success in school is becoming increasingly important as our society becomes more highly industrialized and complex. Evidence continues to mount which indicates that success in school depends on many related factors of a non-academic nature. The successful function of today's American public school is not strictly limited to academic pursuits and perhaps in historical perspective it never has been. Many significant and necessary services are provided youngsters in the areas of food, health, and transportation. While reflecting legislative enactment, the importance of good attendance services must not be minimized. A child must properly be in school if optimum educational development is to transpire. Many services in these four areas are recognized as playing a vital role in the growth and development of the youth in Eloy. This section of the survey is directed to the study of such non-academic school services.

I. ATTENDANCE SERVICE

Point of View

Boys and girls need to be in school regularly if optimum educational growth and development is to take place. Unfortunately, within our society is a small percentage of parents who are indifferent to their responsibility for having their children in daily attendance. This condition often becomes more prevalent as children reach junior high school age. Then their services can be used in the world of work. Also prevalent for some students at this age is an attitude of dislike for school. This is especially true for those who have not gained a measure of success in the academic setting of the school. To protect youth from both of the above conditions, compulsory attendance laws have been enacted by the State. It is the duty of each school district to assure their enforcement. The school administration should be able to account for all children of compulsory school age within its district boundaries.

Observations and Commendations

The administration and board has recognized the importance of this task and employed an attendance officer. It might also be emphasized that the employment of a bilingual person from the community was desirable. The attendance officer serves all three schools and indicated a work load of fifteen to twenty home visits per day. He has been provided a car and is on duty for nine months a year.

The attendance officer indicated he only handles cases initiated by written requests from teachers. Daily contact is made in each school's office to pick up referral slips. Currently there is no written job description defining his duties. While there is no written school policy on attendance, he indicated that illness is the only excuse he accepts for absence from school.

Recommendations and Conclusions

The entire attendance service could be greatly enhanced by the development of a record keeping procedure. At least a brief written anecdotal record of pertinent data for each referral appears needed. Follow-up notices should be sent to the respective teachers after a home visitation. Also, monthly and annual reports would be very beneficial in appraising and improving the effectiveness of this service. In the event of a court case such records would be extremely valuable. It was indicated that there never had been a court case regarding the enforcement of compulsory attendance; however, advance preparation for such an eventuality seems advisable.

It is recommended that written board policies be developed covering the following facets of attendance.

1. actual residence defined.
2. tuition policy for non-district children.
3. pupil assignment to a school, grade, and teacher.
4. annual school enumeration in order to account for those attending private, parochial, or non-district public schools, as well as those just not attending.
5. reasons acceptable for absence such as travel, work, religious holidays, and illness.
6. procedure to be followed for unexcused absence.

II. HEALTH SERVICES

Point of View

Typically the good student is a healthy student. Public schools have been forced to provide many health services that some parents fail to provide. Even in the case of interested parents, the school can play a vital role in providing needed health services. Usual services include (1) routine checking of the health and physical condition of children; (2) immunization and examination for communicable diseases; (3) first aid treatment for accident and illness at school; and (4) the identification and follow-up on visual, auditory, dental, psychological, and other special problems. School nurses are in a unique position since they have entrusted to them all the youth of a community. The role is often very difficult but also very rewarding when adequately handled.

Health services need to be closely coupled with the teaching of good health practices. Health instruction has been accepted as a basic goal of education for many years. Maximum efforts need to be expended to provide effective health services and instructional health activities. Student appreciation and understanding of good health habits are needed for optimum growth and development.

Observations and Commendations

The Eloy School District has a full-time, well-qualified school nurse. The school nurse is to be commended for her excellent job during the past nine years. A fine program has been developed in all respects. While the student load appears quite large, she indicated she was able to handle the job. Currently she has one aide, a practical nurse, to help with the entire faculty of fifty-four teachers. An excellent set of records have been developed. She has also made a detailed compilation of such information as the number of health examinations, immunizations given, audiometric and vision screenings, special services provided, a detailed listing of referrals to local doctors, and the total number of office calls for the year.

While not new, the facility and equipment were adequate for the job to be done. No need for additional equipment was indicated. Only an emergency room is planned for the new building with the main office remaining in the Central School.

Regarding operational practices, the school nurse indicated close adherence to the County outline of what should or should not be done. Every effort was made to coordinate the district program with State and County health departments as well as service groups such as the Lions Club. Evidence of such cooperation was the current supplying of thirty pair of glasses by the Lions Club. Satisfactory cooperation with a local doctor was indicated.

Conclusions and Recommendations

Only three significant suggestions are made after examination of the Eloy School health services. The first is presently beyond the scope of the nurse but is recognized as vitally needed. This is the provision for dental services. Presently there is no dentist in Eloy. Consequently it is almost impossible to have anything but minimal service in this area. When such a person is secured for the community his services should be coordinated with those of the school.

It is further suggested that additional effort be made to provide for greater instructional help to teachers as they work with health instruction. While the nurse's current work load indicates that this may be extremely difficult, future planning and perhaps additional help should include such provision. Health services and health instruction are closely related. The school nurse, because of her training and skill, is in a position to provide valuable help to teachers in this important area. Additional help would also provide the nurse with needed time for additional parent conferences and follow-up work.

It is recommended that more complete staffing be provided for the Eloy schools in 1966-67. One nurse should be assigned to Primary School, one to Central School, and one to the new school and South School. The present nurse should work with the other school nurses.

It is recommended that the system of checking on school absences be changed and that the nurses of the respective schools be responsible for this function. The school nurses are in a position to make a valuable contribution to the total health, welfare, and attendance of school pupils.

III. FOOD SERVICES

Point of View

The school lunchroom program can make a big difference between adequate and inadequate school performance for many, many children. It is a simple statement of fact that a child who is fed properly is a better student than a hungry one. Through the years the school lunch program has acquired a vital role in all schools because it contributes to the learning experiences of every child who uses its facilities. It is a sound and integral part of the total educational program. Four possible contributions of the school lunch room program are listed here.

1. The school lunch program provides students with foods of good nutritive value. Sometimes the best meal a child receives is the one he receives in the school lunchroom. By directly helping to safe-guard the health and well-being of children, the school's on-going task of developing intelligent future citizens is greatly enhanced.

2. The school lunch service offers opportunities for classroom teachers and cafeteria personnel to coordinate their efforts in teaching children about food and its relation to good health. Ample enrichment opportunity is provided for teaching children facts of nutrition as relates to social sciences, health, physical sciences, home economics, and other class activities.

3. Eating habits established at noon are likely to be remembered by the children when they eat their morning and evening meals away from school. Many lessons in nutrition learned by pupils in the school lunchroom will be passed on to their families and, in later years, to their own children. Habits and attitudes towards new foods and to familiar foods prepared in new ways are extremely important. Proper food habits learned early in life are never really "unlearned".

4. The school lunch program provides a relaxed and unstructured social setting for boys and girls. With the ever-increasing concern for academic preparation a change of pace in the child's busy day appears needed. Also, through daily application children can be taught the simple courtesies of the dining room.

Observations and Commendations

In general the present food service program in the Eloy Schools was good. Certainly the entire operation will be greatly improved by the new facility in the new building. Many of the following comments and reactions reflect the new facility and its anticipated usage. The cafeteria manager and four cooks are to be commended on the cleanliness in preparation and wholesomeness of the meals served. It was apparent from the air of anticipation that their fine service will be even more effective in the new facility. All the ladies were very friendly and appeared to enjoy their work at the school.

The district participates in the National School Lunch Program and serves approximately 750 Type A lunches per day. This includes a group of fifty to sixty high school students who also use the Central School facility. Currently all the food preparation for the three schools in the district is done in the facility at Central School. Mobile service is provided for Primary School and approximately fifty to sixty primary youngsters are transported by bus from South School. Lunchroom prices are graduated with the primary grades (1-3) paying $1.10 per week and all other students paying $1.25 per week. Faculty and staff pay thirty-five cents per day for their meal. The District is commended for providing approximately 140 free lunches per day to needy youngsters. This has been done in a very unobtrusive manner. A supplementary milk program is also employed for the primary level grades.

Complete delegation of responsibility for operation of the cafeteria has been given the cafeteria manager. The manager is commended for the fine role she has performed. The existing brief job description of her position indicates "full control of cafeteria operations, including personnel, menus, purchasing, eating schedules and collection of monies". Final authority in all matters concerning personnel, purchasing and major policies rests with the superintendent and board of trustees. At the present time the cafeteria manager's salary is the only one paid by the Board.

Scheduling has been staggered in such a manner that seating in the present dining rooms is adequate. All students, including those from the high school, are served between 11:00 and 12:30 without excessive waiting. Use of the new facility will further improve this situation and no problems should exist. The use of student help appeared satisfactory. Approximately a total of twelve students for both schools were used in this capacity.

Conclusions and Recommendations

The following recommendations are suggested for study.

1. The mobile service appears to function satisfactorily. It is suggested that connection and use of the heating wells in the Primary School building would improve the operation. Also, the future replacement of dishwashers for both Primary and Central School when financially possible would greatly improve the service. The panel truck used in the operation appeared satisfactory and the driver indicated no problems.

2. Because of limited enrollment in South School, the continued transportation of students to one of the other cafeterias appears necessary if present grade usage of the facility is to be continued. Future use as a kindergarten unit could elminiate this procedure if the educational program is half-day.

3. It is suggested that improved student control will be achieved if teachers eat with their groups or at least in the dining room. It appears that this will need to be the case in the new school and should be instigated in the Central School cafeteria as well. The lunchroom period can provide many valuable opportunities for teaching-learning activities. Certainly the teacher needs to provide a guiding influence if optimum educational benefit is to be attained.

4. The equipment in the food preparation facility was functional. Improvement for the future should include consideration of new ovens. However, of greater priority would be the need for a dishwasher. It is suggested that the administration and cafeteria manager develop and submit for board approval a long range policy for replacement and/or repair of equipment.

5. Present limited dry and cold food storage facility will be greatly increased with the new building. Such added space may permit larger quantity purchases at more advantageous prices. Purchasing practices for canned goods and other staples which often vary in price from one month to another should be studied.

6. It is recommended that the administration and board establish written policies for the purchasing of food-stuffs. The procedure of purchasing by bids such items as milk, baked goods, and meats should be explored. Bids would be subject to approval by the board. Current practices of sharing the business or purchasing without comparison can result in a higher unit cost per meal. This in turn means a lesser quality meal for the student or a slightly higher price.

7. It is suggested that unit costs per meal be made over a period of time and results studied regarding amount of food waste. Classroom teachers can and should be helpful in educating students to eat new foods.

8. It is suggested that provision be made in the cafeteria for more effectively serving second helpings.

9. It appears certain that additional help will be needed when the new facility is placed in operation. The present operation appears a little understaffed.

10. In keeping with the policy of a graduated unit lunch price, the possibility of increasing the fee for high school students to thirty cents appears wise. The proportionate amount served high school students in comparison to elementary students appears to warrant such a change.

11. Job descriptions should be developed for the cafeteria manager or her staff. Certainly greater employee peace of mind as well as effectiveness of effort would result. It is also suggested that consideration be given to the professional administrator's duties and leadership role in the food services program.

12. All employed cafeteria personnel should be urged to attend at least one in-service meeting or workshop per year. Typically the small expenditure needed to defray such costs is more than offset by improved employee performance. At the present time only the cafeteria manager attends same.

13. While the current procedure for handling records and purchases through the school secretary appears to work, the development of a more systematized approach would allow the cafeteria manager more available information as she plans purchases. The assignment of a part-time clerical assistant or a planned time provision for the cafeteria manager to carry out this task is needed. Greater coordination of knowledge regarding receipts and expenditures appears necessary.

14. Greater effort should be made to make the noon lunchroom activity more of a learning experience. Teachers should strive to integrate this activity with more of their classroom activities. Not only would the outcome be educationally sound but it would also result in pupils eating a more balanced, nutritious meal with a reduced loss in food waste. Boys and girls need to learn about new foods and develop good eating habits. Teachers who join their students at lunch can be of valuable assistance in this endeavor.

IV. TRANSPORTATION SERVICE

Point of View

The transportation of pupils to and from schools has been the subject of state legislative enactment. In accordance with the provisions of law, each school district must develop and maintain a safe and efficient transportation service for its students. The rationale for school bus transportation appears self-evident if equality of educational opportunity is to be attained for a widely scattered student population. Minimum standards for school buses and their operators have been established by State law. Not only should each district adhere to these minimum standards but even seek to go beyond them. Every school bus operator needs to constantly strive to attain the goal of assured safety and well-being of every child. Both pupils and driver need to develop and continuously practice good safety habits. Buses need to be regularly inspected and their continual safe operating condition assured.

The cost of transportation services represents a sizable budgetary item. Care must be exercised to obtain optimum efficiency and still maintain maximum safety. The recent issue of School Management, January, 1966, indicates a national average expenditure of 4.6 per cent of the net current expenditure for transportation services in 1965-66. Closer examination of the statistics for appropriate regional and school size indicates an increased figure of 5.4 per cent. Careful re-examination of transportation policies and procedures are continually necessary if wise and efficient transportation services are to be provided.

Observations and Commendations

Eloy School District is to be commended for its concern for pupil safety. All drivers are properly licensed and approved to operate a school bus. Each bus driver has been required to become familiar with a detailed list of bus driver rules and regulations developed by the district. Care has been exerted to maintain all buses in safe mechanical condition. The district has always complied with all annual compulsory inspections and resultant recommendations. The district operates six bus routes, transporting a total of 321 pupils. The district owns nine buses as described below.

1960	GMC	60 passenger	spare bus
1960	GMC	60 passenger	
1961	FORD	48 passenger	
1962	FORD	60 passenger	
1962	FORD	60 passenger	
1962	FORD	48 passenger	spare bus
1963	FORD	60 passenger	
1963	FORD	60 passenger	spare bus
1964	FORD	60 passenger	

None of the buses transport an overload in their daily routes. The largest bus load is 58 and the smallest is 40 children. The student travel time for all routes appeared quite satisfactory. The district has adequate housing for all buses on school premises as well as a garage for servicing and minor repairs. Five buses are regularly housed in the bus garages while one driver drives one home each night.

The district employs a full-time person who is in charge of the entire transportation operation for Eloy Schools. A brief written description of his role indicates he is "in complete charge and solely responsible for maintenance and repair of all school vehicles, shall have authority in the purchasing of parts, supplies and materials, and shall have control over all bus drivers and other employees of that department, including bus routes and schedules".

The District is commended in their practice of using a youth corps boy on each bus to improve safety practices during loading and unloading. This young man also serves to help keep the bus clean.

The task of attaining well-qualified drivers was indicated to be a problem. Presently four of the six drivers are also teachers in the Eloy school system. It is recommended that the administration and board study the advisability of regularly using teachers for drivers. A teacher has many responsibilities before and after school which can not be adequately cared for if he is driving a bus.

The salary range of $85 to $110 per month needs to be studied for possible improvement. Currently the district is expending 3.26 per cent of its budget for transportation.

Conclusions and Recommendations

Written transportation policies should be developed jointly by the administration and transportation director for consideration and approval by the board. The following specific provisions might be considered.

1. A written job description for the transportation director is needed. The effectiveness of the position could be greatly increased if the duties were defined. The latter is especially significant regarding the role as mechanic, substitute bus driver, and purchasing agent. Consideration should also be given to the professional administrator's duties and leadership role in transportation program.

2. The desirability of purchasing materials on a comparative or bid basis should be investigated. Included would be gasoline, oil, tires, batteries, and minor tune-up parts. Presently, the inability to stock a few extra parts is a reported shortcoming. The decision of ultimate supplier would be made by the administration and board of trustees.

3. A cumulative record system is recommended which tabulates all the operational costs of each unit. At the completion of the year this allows objective unit comparison of gas mileage as well as repair costs. Often apprising a driver of such statistics will cause him to drive and care for his bus in a manner more like that which he uses with his own car.

4. Provision should be established for the use of buses for student field trips. Such a policy might include number allowed each teacher, maximum allowable distance, and driver selection and payment. In addition, written policy is advisable for the usage of other school transportation equipment.

5. It is suggested that an up-to-date composite district bus map be placed in the administrative offices. Possible development and issuance of dittoed individual driver maps in each bus can also be valuable when a substitute driver takes the route or an emergency occurs. A posted stop and time schedule in each bus, as well as in the administrative offices, may improve any emergency situations that could arise.

6. The board should carefully study the advisability of maintaining three spare buses. It appears that improved procedures in repair service could eliminate the need for at least one.

7. Regular periodic study of the bus routes should be made by the administration and transportation director. Designation of certain places as depots for group pick-up should be made. In all cases pick-up points should be studied for maximum safety features.

CHAPTER VII

STAFF PERSONNEL - CERTIFICATED AND CLASSIFIED

INTRODUCTION

The most important job of a school board is the selection of staff personnel. The kinds of teachers needed must be considered in terms of the pupil population. The nature of the community, the schools' program, and personal characteristics of other staff members. It is apparent then, that the quality and effectiveness of a school system is largely determinant upon the personnel employed.

There are two types of school employees - certificated and classified. Certificated personnel are usually classroom teachers and administrators. Classified personnel are those who offer supportive services to the school system as secretaries, bus drivers and cafeteria personnel.

Each type of staff personnel has its own particular function. The key person is the classroom teacher whose job it is to provide the best learning experiences for the child that he can provide. The administrator's function is to provide the teacher the best learning situation that can be made available. The administrative responsibility includes the selection, assignment, and orientation of the teachers, as well as in-service programs, staff communications, development of personnel policies, and the general improvement of school conditions.

CERTIFICATED PERSONNEL

Professional Information

Administrative and Teaching Positions. Fifty-eight certificated personnel were employed in the Eloy School District during the school year 1965-66. This includes two administrators, one who is the superintendent and the principal of the Central School, and the other is the principal of the Primary School. The South School had the services of a head teacher. Table I shows the number of teachers and administrators by schools.

Levels of preparation. For the last 20 years in the United States, the trend for the preparation level of teachers has been increasing. Arizona ranks high nationally in this regard.

Table II shows the number and percentage of the teaching staff who hold bachelor's and master's degree. A total of 47 teachers (84 per cent) held the bachelor's degree and 9 teachers (16 per cent) held the master's degree. Many teachers had accumulated many credit hours above the bachelor's degree but had not yet completed the requirements for a master's degree.

The Eloy District's salary program indicated that $200 extra per year would be paid for a master's degree. No other credit-hour hurdles were

TABLE I

NUMBER OF CERTIFICATED PERSONNEL, ELOY SCHOOL DISTRICT, 1965-66

School	Teachers	Principals	Total
Central	31	1**	32
Primary	21	1	22
South	4*	0	4
Totals	56	2	58

* Includes Head Teacher
** Superintendent acts as principal

TABLE II

HIGHEST DEGREE EARNED BY TEACHING STAFF, ELOY SCHOOL DISTRICT, 1965-66

	Degrees					
	Master's		Bachelor's			
	Number	Per Cent	Number	Per Cent	Total Number	Per Cent
Male	4	7	8	15	12	22
Female	5	8	39	70	44	78
Total	9	16	47	84	56	100

apparent in the salary scale. The district should give serious thought to increasing the monetary reward for advanced degrees and set up hurdle steps within the salary schedule for certain number of hours beyond the degree level. This would further encourage the teachers of the district to do advanced academic work.

Experience of Teaching Staff. Experience in any field contributes to the effectiveness of a teacher in his present teaching position. As shown in Table III, some 49 Eloy teachers (85 per cent) had teaching experience prior to their coming to the Eloy District. Only 15 per cent of the teachers had no experience prior to their employment in the Eloy District. It is of note though, that fifty-two per cent of the Eloy teachers had been in the district four years or less. This high percentage, it is felt, is due in part to somewhat high teacher turnover rates and the lack of a competitive salary schedule.

Teacher Turnover. Teacher turnover in any district can often be a debilitating factor in carrying on the educational program. This is even more true in smaller districts and schools where teacher turnover is more easily apparent and affects the educational program to a greater degree.

Table IV represents the teacher turnover in the district for the past five years. It is of note that for three of the five years represented, the percentage of teacher turnover exceeded the national percentage of elementary teacher turnover. This is believed to be a valid reflection of the Eloy salary schedule.

Some thought should also be given to the fact that Eloy lies between the two largest metropolitan areas in Arizona. These two areas are not really too far from Eloy and offer teachers the highest salary schedules in the state. Both areas are easily accessible to a teacher wishing to change positions.

Personal Information

Consideration should be given to several factors in the employment of teachers. Not only academic grades and teaching experience should be examined, but such factors as sex, marital status, age, community activities and professional affiliations should also be weighed in the selection and employment of the teaching staff.

Balance of the teaching staff should be one of the prime criteria in the selection of teachers. A staff lacking balance in personal characteristics often becomes less effective in contributing to the educational program. Balance on the teaching staff should lend itself to the sharing of strengths which in turn strengthens each teacher's contributions to the educational program.

Age Range of Teaching Personnel. Table V shows the age range of teaching personnel for the Eloy School District. Some twenty per cent of the staff were under 30 years of age while some thirty-one per cent of the staff were over 60 years of age. Fifty per cent of the staff were between thirty and fifty years of age. The age balance in the Eloy District was very satisfactory.

TABLE III

TEACHING EXPERIENCES OF TEACHING STAFF, ELOY SCHOOL DISTRICT, 1965-66

	In Eloy		Outside of Eloy	
Years	No.	% of staff	No.	% of staff
1	14	25	6	12
2	3	5	5	10
3	6	11	9	18
4	6	11	1	2
5	3	5	4	8
6	5	9	3	6
7	3	5	2	4
8	2	4	1	2
9	5	9	1	2
10	0	0	2	4
11	0	0	2	4
12	3	5	0	0
13	1	2	2	4
14	1	2	3	6
15	0	0	2	4
16	2	4	0	0
17	0	0	1	2
18	2	4	2	4
over 18	0	0	3	6
Total	56	100%	49	100%

TABLE IV

TEACHER TURNOVER
ELOY SCHOOL DISTRICT, 1961-65

School Year	Number Beginning	Number Returning	Number Resigned	Percentage
1961-62	52	41	11	21
1962-63	53	43	10	19
1963-64	54	49	5	9
1964-65	55	41	14	25
1965-66	56	53	3	5

TABLE V

AGE RANGE OF CERTIFICATED PERSONNEL
ELOY SCHOOL DISTRICT, 1965-66

Age Group	Number	% of Staff
25 and under	5	9
26-29	6	11
30-39	12	21
40-49	16	29
50-59	11	20
60 and over	6	11
Totals	56	100%

Sex and Marital Status. Though a proper distribution of teachers by sex does not guarantee any increased effectiveness in the educational program of the district, it should be a factor especially in districts with large numbers of disadvantaged children. Eloy district could increase the number of male teachers. There were 12 male teachers and 44 female teachers in the District.

Though marital status too, does not guarantee better teaching, it does often indicate a greater stability in the staff, resulting in a lower turnover rate. Seventy-one per cent of the teachers in the District were not married.

Home Ownership. Home ownership is frequently an indication of good staff morale and a desire of employees to remain within the local area. Fifty-three per cent of the teachers owned their own homes. However, the contractual agreement between the Eloy Board of Trustees and the teachers stating that teachers must reside in Eloy in order to gain employment should be rescinded in the interest of securing and retaining the best teachers. This type of clause in a teaching contract affects teacher morale and takes no cognizance of the individual's right to reside where he wishes and the ability to be transported long distances in short periods of time.

Outside Employment. It was surprising to find with the existant salary schedule that only thirty per cent of the Eloy teachers had outside employment either summers or during the school year. Four teachers were employed by the school district as bus drivers for the district. This is a practice which should be discontinued as the practice of employing teacher-bus drivers surely affects their abilities and performance in the teaching role. Another factor in teacher's outside employment is that the Eloy area has limited amounts of part-time work available.

Community Activities. Normally teachers are active participants in the community in which they teach and Eloy teachers are no exception. Not all teachers were active participants in community organizations, yet almost half of the teachers were active in two or more organizations.

Recruitment and Orientation

Recruitment. As stated in the previous sections, several factors in recruitment should be weighed in order to procure a balanced staff. Age, sex, previous experience, number of degrees, and specializations are factors which should be considered in order to gain an effective total staff. Also the factor of localism should be examined. A diversity of geographical backgrounds enhances the educational program.

Recruitment should be an ongoing program. Not only at contract time, but throughout each year prospective teachers should be given the opportunity to apply. Prospective applicants should be encouraged not only from Arizona universities but an effort should be made to encourage applicants from outside of the state.

Orientation. In a small school system and community, orientation is handled on an informal basis. However, time and effort should be allocated prior to the opening of school each year for orientation sessions for new teachers. It is further recommended that a personnel policy and teacher's guide book continue to be revised and published each year.

In-Service Activities

A major administrative responsibility is the encouraging and providing of in-service activities for the professional staff. In-service programs need to be carefully encouraged and focused on problems that are relevant to the staff and students. These programs can be handled in many different ways - by hiring consultants, developing programs within the district, extension courses from universities, etc. There is no evidence during the past three years in the Eloy District that any programs of in-service education have taken place, except a few teachers who were involved in a Head-Start training program. With the many new curricular advances and the fluid state of many teaching methods, it is imperative that in-service education programs be established on a cooperative basis with all of the teachers in the district. These programs should be established on the basis of the teacher's needs and be continuous and expected for all certificated personnel in the district.

Participation in Professional Organizations. The participation of staff membership in professional organizations is another indication of professional interest and growth of teachers. The survey revealed that around 65 per cent of the Eloy teachers' belonged to one or more professional organizations. Some 25 per cent of the teachers did not belong to professional organizations. Though this is a great improvement over 1960 when there was no local organization and less than 10 per cent of teachers were affiliated with the state organization (as reported in The Enterprise, February 11, 1960). This is still not as good as it should be for a school system in Arizona. Though professional affiliation makes no guarantees to teachers, it does reflect a pride in their vocation and a willingness on a teachers part to improve their educational system.

Need for Assistance with Instructional Problems. Some 32 per cent of the Eloy teachers professed needs for assistance in their teaching role. This is an amazingly low percentage as the district has had no real in-service programs over the last three years, has limited administrative help due to the administrator's loads, and is not geographically close to any educational center offering extension classes.

The expressed needs were for: (1) Teacher-aids, (2) more preparation time, (3) specialized teachers of reading and art, and (4) more administrative guidance.

It is recommended that the District take a look at these expressed needs and see if these problems might be ameliorated either with finances or improved planning by the staff.

Teacher Tenure, Retirement and Fringe Benefits

Probationary Teachers. Under the laws of Arizona, a probationary teacher is one who has served from one to three years at a given school system and has not yet received a fourth contract. Twenty-three teachers in Eloy were probationary teachers; fourteen in their first year, three in their second, and six in their third year. Some 41 per cent of the staff were probationary teachers. Fifty-nine per cent (33) were tenure teachers.

Retirement and Fringe Benefits. The retirement program for Eloy teachers includes The Arizona State Employees Retirement System and Old Age and Survivors Insurance. The District has also just instituted a health insurance program and should be commended for this.

Leaves of Absence

Sick Leave. Leave for illness is almost a universal practice in industry and education in the United States. Eloy district is no exception. The district sick leave policy is seven days a year, accumulative to twenty-one days with full pay. Sickness beyond the time accumulated usually resulted in full deduction of the teacher's pay.

It is recommended that the Eloy district institute a sick leave policy of 10 days a year accumulative on an unlimited basis and apply this to all teachers. Experience has shown that teachers are not normally abusive of sick leave benefits and adequate protection of the teacher will result in improved morale.

Professional Leave. There was no district policy on this point.

It is recommended that the possibility of implementing professional leave be instigated by the district.

Personnel Records. Complete personnel data should be kept on each employee in the district. The district office maintained a copy of the record form which is supplied to the County Superintendent and the State Department of Public Instruction. These are not adequate enough for the local district's uses. The personnel data should include a complete record of employment on each individual, references, transcripts, qualifications, evaluations, payroll and absence records, medical records, etc. These files should be examined periodically to assure their proper maintenance and their recentness.

Certificated Personnel Salary

The establishment of a salary policy for a school district is one of the primary steps towards good education. The rate of pay, the amount and number of increases, the working conditions, compensation for degrees, etc. will ultimately determine the number and kinds of teachers that will be attracted to and retained by a school district.

The determination of the salary policy is a joint concern. Teachers, administrators, parents, boards of Education, and tax-payers are most concerned with a school district's compensation policy as it affects each group. Because of the several groups affected by a district's compensation policy, compromise becomes an essential procedure of arriving at a policy. Great care must be exercised by all involved to see that conflict is recognized as well as ameliorated.

Principles of Salary Scheduling. There are several questions which should be given thoughtful consideration in determining a salary schedule. Generally, the purpose of a salary schedule is to attract, upgrade and retain the best qualified teaching personnel that can be brought into the district. More particularly, the following can serve as a guide to salary scheduling:

1. Minimum salary - high enough to attract promising candidates to the district.

2. Maximum salary - high enough to retain competent and professional personnel.

3. Maintains a guarantee of equity for personnel of like qualifications.

4. Provisions for annual increments on an orderly basis to the maximum.

5. Provision for recognition of improved professional competence while within the ranks.

6. Salaries of administrators should reflect the same orderly process that result in the determination of the teachers' salary schedule.

7. Appropriate involvement of other teachers and others in the development of the salary schedule.

8. Periodic adjustments in the salary schedule due to changes in the cost of living and trends in other professional vocations.

Eloy Salary Schedule. Table VI shows the salary data for Eloy School District for 1965-66. The district had a minimum beginning salary of $4800 with a maximum salary of $7000. The median salary for the district was $5900. Table VII shows the comparison of salary ranges between Eloy District and other schools in Pinal County.

As is easily apparent, Eloy District's salary schedule is competitive on the beginning salary level, but is quite lacking at the maximum level.

In comparing Eloy's salary schedule with individual districts in Pinal County, it is evident that the minimum beginning salary of Eloy is quite competitive with the other districts. However, the maximum salary of Eloy District is tied with one other district as the lowest in the County.

It is evident then, that Eloy District is not in a competitive position in regard to maximum salary offered. This is again indicated in the turnover rate for the district, as shown in Table IV. It is highly recommended that the District take a critical look at its salary schedule and proceed to bring the schedule more into line, especially at the higher levels of the scale. It is further recommended that the district adopt an index system for the salary scale, implement hurdle steps within the schedule and give a greater financial record for advanced degrees.

TABLE VI

SALARY DATA FOR CERTIFICATED PERSONNEL ELOY SCHOOL DISTRICT, 1965-66

Salary	No.	Per Cent
4800-5000	4	7
5100-5300	3	5
5400-5600	14	25
5700-5900	8	15
6000-6200	7	13
6300-6500	8	15
6600-6800	11	20
6900 and over	0	0
Total	55	100

Mean Salary = $5960

Median = $5900

Mode = $5600

TABLE VII

SALARY RANGES FOR ELOY DISTRICT AND PINAL COUNTY 1965-66

	Minimum	Maximum
Eloy District		
B. A.	$4800	$6800
M. A.	$5000	$7000
Pinal County		
B. A.	$4800	$8900
M. A.	$5000	$9350

CLASSIFIED EMPLOYEES

Personnel who do not teach are usually referred to as classified employees. These are people who are not hired to directly deal with the educational program, but they operate in supportive roles to the student, teacher, and administration.

A classified employee operates in many areas. He may be responsible for or help in such areas as:

1. Health and Safety

2. Transportation Services

3. Secretarial and Clerical Services

4. Custodial Services

5. Food Services

It must be remembered that classified employees do not take the place of the teacher in the educational program; yet, classified employees not only provide services to the educational program, but indeed, often become a necessary adjunct to it.

Classified Positions. In the Eloy School District the classified employees include secretaries, attendance officer, nurse, custodial help, cafeteria workers, and those involved in the transportation of pupils. The wages paid to the classified employees range from yearly contracts to hourly wages. The turnover ratio in these positions seems quite low as many employees had been in the district for several years.

Salaries and Personnel Policies. The salaries paid to the classified employees in the district seemed to exceed the pay for comparable positions in the Eloy area. This is as it should be to assure the attraction of high caliber people. Many of the employees seemed to exceed what would be thought of as a regular work week without extra compensation.

There were apparently no personnel policies, job descriptions, nor salary schedules as such for classified employees in the district. It is recommended that such policies, schedules, and descriptions be formulated as soon as possible.

Four teachers also acted as bus drivers for extra compensation. One teacher acted as a safety guard for extra compensation. These practices should be discontinued as soon as possible and the teachers should be replaced by part-time classified employees. Though the teachers do receive extra compensation for the additional work, it is felt that the teacher should be able to do a better job in the classroom without the additional burden of before and after school duties.

Leaves of Absence. Sick leave for classified employees was not provided by the district. It is recommended that each classified full-time employee be allowed one day leave time for each month worked accumulative on an unlimited basis. This should be done as soon as possible.

Vacation. At the present time, those classified employees who are on a yearly basis receive two weeks vacation. Those who are not yearly contract employees do not. Some thought should be given to expanding vacation time after a certain number of years service to the district.

Retirement. Classified employees in Eloy District participate in Old Age and Survivors Insurance. However, as the maximum benefits are allocated on salary and due to the recent increase of this to $6600, not all employees will receive maximum benefits. As there is an option in the district to participate in the Arizona State Employees' Retirement System by classified employees, this option should be examined critically by every classified employee in the district.

Summary Recommendations

In this chapter on staff personnel many conclusions and recommendations have been made for the guidance of the administration and the Board. The major recommendations are presented below.

1. Encouragement of the certificated staff to obtain more graduate courses and graduate degrees should be made by the district by increasing allowances for master's degrees and establishing steps on the salary scale for work beyond the bachelor's degree.
2. The high rate of teacher turnover three of the last five years examined reflected on the inadequate salary schedule.
3. An attempt should be made to recruit more men teachers to balance the teaching staff.
4. The clause in the teaching contract stating that a condition for employment in Eloy district was to live within the district boundaries should be rescinded.
5. An active, on-going program of teacher recruitment should be engaged in. Contacts of long endurance at universities should be encouraged.
6. Orientation procedures for new teachers should be expanded and more formalized. Personnel handbooks should be continued and enlarged.
7. The personnel records and files should be expanded and be continuously up-to-date.
8. In-service programs for both certificated and classified employees should be started immediately based upon the staff's interest and needs.

9. Further encouragement by the administration and the Board should be given to the teachers for increased membership in the Teacher's Professional organizations.

10. An analysis should be made of the teachers' expressed needs for instructional assistance and the solving of instructional problems.

11. Sick leave benefits for teachers should be increased to 10 days a year accumulative on an unlimited basis.

12. The possibility of granting educational and other types of leave to the staff should be explored.

13. An immediate close look at the salary schedule for teachers should be made. Increases in salary should be made as the district's finances permit, especially towards the higher end of the salary scale.

14. Those employees who are both teaching and holding classified positions should be relieved of their responsibilities in the classified area as soon as possible.

15. Sick leave benefits for classified employees should be instituted. Vacation allowances for these employees should be re-examined and expanded. Salary schedules for classified employees should be created.

16. The possibility of covering classified employees under The Arizona Retirement System should be examined by the district.

CHAPTER VIII

FINANCE AND BUSINESS MANAGEMENT

I. ORGANIZATION FOR BUSINESS SERVICES

Purposes of Business Organization

The business side of operating a school district is to provide services so that an instructional program will be benefited and carried on effectively. In a school district no larger than the Eloy Elementary School District it is inadvisable to establish an elaborate business structure. However, the personnel must perform, on a small-scale operation, the same kinds of services that an elaborate organization performs in a large school district. The business services consists of providing adequate buildings, cleaning and maintaining them, procuring furniture, equipment and supplies, property controls, payroll procedures, and paying bills. The management of money and material is essential for the proper functioning of a school district.

The other side of the school district's operation is the instructional program. This part is concerned with pupils, teachers, instructional materials, curriculum, textbooks, supervision, and learning experiences for children. Business management should give substantial assistance to the instructional program and should never be the dictator of content or method.

Business management is also concerned with school transportation, cafeteria operations, and upkeep of buildings and grounds.

Staff Organization and Recommendations

The size of the district makes it advisable for the superintendent to serve both as instructional leader and business manager. In this latter capacity he must oversee the work of a secretary-bookkeeper, transportation supervisor, custodial supervisor, and cafeteria supervisor. In addition, he must do the purchasing and inspecting. The same skills needed by the many employees of a large district are needed by the superintendent in a small district. It is not humanly possible for one man to become skilled in all the processes that are needed to operate a school district; the best that can be done is for him to do the best that he can.

One function of business management is property control. This broad area of operation includes purchasing, receiving, accounting, storing, apportioning, evaluating, and inventory. In a large school district's operation each of these functions is performed by a person or persons highly skilled in the activity. A very large district may have one purchasing agent who does nothing but purchase paper products for the district; another who does nothing but purchase school furniture; another who does nothing but purchase insurance; etc. Receiving is the process of checking to see that merchandise ordered is delivered in proper quantity and in proper condition. Storing is the process of putting supplies and equipment in a storage place until needed. Accounting is the process of making sure payment is made only for items duly purchased and that they are charged against the proper budget category. It also entails the proper receipt of and accounting for all student activites monies and the payment of student organizations' obligations. Evaluating supplies and equipment purchased is a joint responsibility of those charged with its procurement and those who use the items. The inventory of equipment is mandatory under the state law.

Recommendations. It is recommended that clear lines of authority and assignment of responsibility be established by board policy and administrative regulations. Job descriptions should be written for all administrative personnel and caution should be exercised to see that all functions are assigned to one person and not split between two or more people. The responsibility for job performance must be placed on the person to whom the assignment is made. Others for whom supervision is to be provided should clearly understand the purposes of the organization and their responsible part in the performance of services needed to enhance the instructional program.

II. STEWARDSHIP

Citizen Control

One of the last vestiges of "grass-roots democracy" is the local school district. School electors can express themselves twice yearly; once at the time the board submits the tentative budget for citizen scrutiny, and once when a member of the board of trustees is elected. Protests of proposed expenditures on the tentative budget can result in action by the board to cut expenditures, although this is not mandatory. However, citizens who think that the budget is not large enough cannot secure an increased budget at this late stage in the game.

Another control by citizens is in the election to determine whether or not the district will buy school sites, buy buildings, or build buildings. Still another control is the recall election if a board member is not performing in an honorable fashion. When the property taxpayer receives his yearly tax statement he knows that the local school trustees have made a determination relating to schools that is costing him money. If he thinks that the money is wisely spent he is grateful for their unselfish service; if he thinks it's a waste of money or for unnecessary "frills" he may think that the board has been less than responsible.

All board meetings should be, and must be by law, open to the public. People should be encouraged to attend meetings to understand the problems that a board of trustees faces.

Controls Vested with the Board

The laws of Arizona places great power and trust in local school boards. Boards employ all personnel, dismiss such personnel for good cause, and determine working schedules and salaries. The board also enters into contracts for services and materials necessary for the proper operation of the schools.

None of the money appropriated to schools, or collected through taxation, can be spent without board approval. However, for good operational procedures, many of the proposed expenditures should be considered authorized when the board adopts a detailed budget.

In this total operation the board's most important task is in the development of operating policy. Policies relating to salary schedules, purchasing procedures, maintenance procedures, custodian standards, size of classes, and policies in other areas of operation affect the money that a school district must raise and spend. Every district operates on the basis of policy, some written and some unwritten. As districts become more complex in operational procedures it becomes mandatory that more and more policies be reduced to writing. This promotes effective administration, improved morale and consistent operation. It is recommended that the Eloy Board of Trustees, with the leadership of the superintendent, begin to develop written policies. Good policies are those that are determined by the democratic procedure of participation. Those to be affected by the policy should have consideration in formulating policy. They should be given the opportunity of expressing themselves about the policy. By such participation the employee will more readily accept and adopt the use of such policies.

Property Control

Property control relates to many kinds of property owned or controlled by a school district. The following kinds of properties should be controlled and protected: school sites, buildings, equipment, furniture, supplies, money, important papers such as blue prints, deeds, title insurance policies, guarantees, warranties, parts lists, and operational manuals. The control of money will receive separate treatment later in this report.

Buildings and Contents. The use of school buildings by non-school groups is subject to the buildings not being needed for school purposes and also subject to board rules and regulations. Board policy should determine the use to which buildings may be put. Board rules will determine the nominal charges that will be made for use of buildings. The law does not permit use of school facilities by other groups unless nominal fees are collected to help defray expenses for utilities and custodial services. Tax money must not be spent for things not directly related to the education of pupils of the district.

Inventories must be maintained on school sites, buildings, and contents. A separate card should be made for each site. Information concerning the site, such as date purchased, from whom purchased, size, cost of site, water rights, easements, etc. should be recorded. Periodically, maybe once each 5 or 10 years, it would be well to re-assess the value of the land to determine the current value. This is not essential but is of interest and has historical value. A separate card should be made for each building. This card should contain information concerning the size, cost, architect, remodeling costs, and periodic valuations. It is well to have the buildings and contents appraised every five years for insurance purposes. Each year the appraisal should be brought up to date.

INSURANCE COVERAGE

An appraisal by a qualified appraisal firm is essential for insurance purposes. If the district carries more insurance than value of the buildings the additional premium charge is a form of waste of taxpayers money. If the building is under-insured and a loss occurs the insurance claims will be less than the actual loss. The survey team did not find any appraisals on file; however, new staff members had not been through all files so it cannot be said that appraisals did not exist.

The Don Mahoney Agency of Eloy served as the insurance advising agency for the board. The district properties were covered with the Public & Institutional Property Form Blanket Coverage with endorsements for Vandalism and Malicious Mischief and Replacement Costs. The district had the following policies:

Policy No.	Company	Amount	Expiration Date	Cost
S189126	Merchants	$184,000	10-1-66	$1724.08
02A11357	Am. Employers	184,000	10-1-67	2154.64
PF308426	Hartford	184,000	10-1-68	2154.64
PF501882	Hartford	184,000	10-1-69	2319.00
F4310784	American	184,000	10-1-70	2283.00
	TOTAL	$920,000		

All policies were five-year policies and were of proper form. The cost of the VMM is sometimes questioned by school boards. However, local experience determines whether or not the district needs this kind of coverage. A $500 deductible clause might be appropriate.

Inventories of building contents were not evident. Simple inventories made by individual teachers and custodians serve a fine purpose in case the district must prove a fire loss.

Supply Storage. Supplies were stored in a special storage space in one of the buildings. Control was maintained by a custodian. Items were purchased when supply was low. Supplies in the cafeteria were stored in a storage space that was also used as a teachers dining room. Adequate storage space was not evident.

Storage of custodial supplies was in a building used for maintenance work on small equipment. The old maxim of "A place for everything and everything in its place" was not evident.

A warehouse for a district the size of Eloy is certainly not recommended. Any savings that might be effected by quantity purchasing will be more than offset by operating costs and losses occuring from deterioration, obsolescence, disappearance, and damage. It is best to keep the inventory of supplies and equipment as low as possible, and yet adequate, to prevent the kinds of losses identified.

Control of Keys. Keys for the various buildings and rooms were maintained in the superintendent's office. The control was not systematized and needs attention. Locks are repaired by the maintenance supervisor; however, he does not make keys; these must be purchased at a local store. It is recommended that a simple key-making machine be procured so that a financial savings can be effected by not requiring as many trips to secure duplicate keys. Lock repair kits are used to a good advantage.

Employee Protection

Workmen Compensation. Modern personnel management practices require that employees be protected by insurance just as school property is protected. The school district is required by law to cover all employees with the workmen compensation coverage under the State Industrial Commission of Arizona. This insurance pays for medical coverage, hospital bills, and provides income protection. If the employee is off the job because of job injury he may have income protection under the following conditions: If off more than seven days he receives 65 per cent of base pay until he returns. If off more than 14 days the pay is retroactive to the first day off the job. Permanent injury results in a settlement by the Arizona Industrial Commission. Arizona has one of the better workmen compensation acts in the United States.

Social Security. Certificated personnel, as well as classified personnel are covered by the O.A.S.I. provisions. At retirement age the employee receives compensation, based on the average annual salary for the five highest of the last ten years of service, with the amount being established on the newly established maximum base of $6600 per year. If permanently injured, or if death results, the survivors, if there are children under 18 years of age (or 22 and in college), receive benefits. The survivors' benefits are as important as are the retirement benefits.

Arizona Retirement System. The Eloy District provides this retirement coverage only on personnel who have teaching certificates. Three and one-half per cent of the employee's salary is paid into the retirement system and this is matched by a like amount from the employer (the county). Benefits build up from month to month and the amount of the retirement income is dependent on accrued benefits, age at retirement, (minimum age is 60), and the life expectancy.

Medical Insurance. The school district provides all employees with a medical, surgical, hospitalization, and major medical insurance policy. This is written by the American State Life Insurance Company and costs the district $75.00 per year for each male employee and $81.00 per year for each female employee. The employee has the privilege of paying additional premium to cover other members of his or her family.

Liability Insurance. The school district has a comprehensive general liability insurance policy that provides protection for the district and employees. The coverage is in the amount of $100,000 for injury to one person and $300,000 for injury to a group. The liability limit is $50,000 for property damage by automobile and $100,000 for property damage by other than automobile. The board is to be commended for providing this type of protection. It also provides protection against corporal punishment, professional liability (for nurse), and materials damage.

Pupil Protection

Pupil Insurance. The school board makes available student insurance for pupils whose parents wish to pay for such coverage. Two types of policies are available. The year-round policy is available at a cost of $12 per year. Coverage for accidents occuring at school, or on the way to or from school, costs $3 per year for each pupil. This insurance is written by the Continental Casualty Company.

Safety. Because pupils are required to attend school under the compulsory attendance laws, the school board has a moral obligation to provide a safe, healthy place for the educational enterprise. Regular safety inspection of buildings, equipment and grounds is needed to insure that hazards do not exist.

Trustee and District Protection

Policies. The Board of Trustees should adopt policies for playground supervision, safety inspections, bus operation, and corporal punishment that will provide the least possible chance for legal suits against the school district. School districts in Arizona are not immune from tort action; this is also true in the majority of the states in the United States. The Stone v. Arizona Highway Commission Court Case abolished governmental immunity in Arizona in 1963. Written policies to govern conduct of school employees is a good procedure to use to avoid damage suits.

Insurance. It has already been established that the board of trustees protects employees against risks by Workmens Compensation Insurance, General Liability Insurance, and Social Security. It protects itself against liability by these three coverages. The General Liability Policy protects the board and the individual members to the extent already identified. A recommendation that the survey team wishes to make is that the maximum coverage for an accident be increased from $300,000 to $1,000,000. Several law suits within recent years have resulted in damage claim awards in excess of $100,000 for a single loss. Damage requests far in excess of the present coverage could result in the event of a bus accident in which a number of pupils were injured.

Budget Control

Budget Preparation. The preparation of the budget should be a democratic process. In the final analysis the Board of Trustees has the responsibility for adopting the official budget and thus establishing the school costs. Each employee should be given the privilege of expressing himself about the supplies and equipment that are needed to perform his job satisfactorily. Good budgetary procedures promotes high staff morale and improved instruction.

Administration of the Budget. After the detailed budget is approved by board action in June or July, such approval should be authorization for administrative personnel to execute the budget, within board policy. Line items are transferred to control cards and encumbered accounts are maintained. The purchasing officer should be automatically authorized to purchase items at time of need. Items not included in the approved budget must be approved by the proper officials before purchases can be accomplished. The budget should be the servant to the instructional program, not the master.

Purchasing. The Eloy Board of Trustees places the responsibility for purchasing in the hands of the superintendent of schools. Within recent months new purchasing procedures had been instigated. Purchase order blanks had been procured and were being used. However, these forms did not have serially numbered purchase order numbers. Such numbers are necessary for good accounting and control. Numbers were omitted because of the additional costs. The advantage of having numbers far outweighs the small additional cost.

The survey team recommends that the following purchasing policies be adopted for district use:

1. The purchasing officer be permitted to purchase any item costing less than $50, at his discretion, if the item is in the detailed budget.

2. Items costing between $50 and $300 should be purchased only after receiving three telephone or verbal quotations, each of which shall be recorded and reported to the board at the next board meeting.

3. Items ranging in cost from $300 to $1,000 be purchased only after receiving written quotations from at least three vendors.

4. Items costing between $1,000 and $2,500 be purchased by sealed bids and that bids be awarded by the board.

5. Items costing more than $2,500 be purchased after advertising for 15 days, at least once weekly for three times, and sealed bids be opened by the board and awards made. The ads can be short; the detailed bid forms can be made available to interested bidders.

The impartial application of such purchasing procedures gives the public confidence in the board. There will be a feeling that the board wants to give the taxpayers the greatest amount of return for each dollar spent. Under this plan, each vendor feels that he has had fair treatment and a fair chance at the business.

In any purchase the quality of the item or service must be clearly specified. Vendors who have a reputation for honest dealing should be given priority whenever prices are competitive. Favoritism should not be shown to anyone. Only by fair dealing will the board establish itself as a responsible public body.

Payroll Procedures. The payroll procedures were examined and found to be satisfactory. However, it is recommended that the procedure of paying hourly employees be modified so that when the payroll voucher goes to the county school superintendent's office the actual wages earned to such date be reflected. The pay warrant that an hourly employee will receive on the 15th of the month will be payment for work performed through the 10th. There will always be a five-day lag in receiving all monies earned. This procedure insures that the district will not have to cancel warrants issued in order not to pay out monies not earned.

Control of Funds

District Receipts. The state and county apportionments are handled by the county treasurer and when board approved vouchers are submitted to the county school superintendent warrants are issued and funds paid out. The same procedure is followed in the handling of district taxes. Local school officials do not handle any of these funds. However, on occasions federal funds are received directly by the district. In this event the same are deposited with the county school superintendent. Receipts from room rentals, library fines, etc., are handled by the individual schools, are submitted to the district office and a receipt is issued. This money is transferred to the county school superintendent's office monthly.

Student Activities Fund. Individual student organizations have accounts in the Student Body Activity Fund. When the money is deposited with the student body treasurer, a person appointed by the board, a receipt is issued. The money is deposited in the bank account and is paid out by check only upon authorization of the student organization. Proper procedures were being worked out to handle these funds at the time of the survey.

These accounts must be audited annually in accordance with state law. The cost of the audit is a proper charge against district funds. The only audit examined was one made by Harry V. Kerrick. It covered the period June 30, 1963, through November 30, 1965. The title of the audit was "Audit & Examination--Holding and Activity Accounts". The audit did not have the characteristics necessary for a proper audit. The Activity Account had the following entries and balances as of June 30, 1965:

Magazines	$387.00
Student Council	(29.52)
X-15 Club	41.90
Cafeteria	53.56
Home Economics	162.96
Carver	34.42
Shop	8.00
8th Grade	(26.72)
Teachers	3.83

Specific questions by survey team members brought answers that indicated that not all of the above accounts were truly "Student Activities Accounts". Some were district funds and should have been deposited to the account of the district funds at the county. Others had no right to be kept by the school. One such fund was "Teachers". The teachers should have their own account and the fund should not be maintained by the school district. Some of the other funds were no longer active. It is recommended that the board, by resolution, abolish inactive funds and place the balances to the credit of the Student Council.

The second type of account was labeled "Holding Account". The accounts listed and balances on June 30, 1965 were as follows:

Lunch Fund	$ 8,366.11
General Account (Dist)	.94
Pictures	0.
Glasses	(41.00)
Caps and Gowns	(44.50)
Shop	619.07
Candy Machines	95.83
Workbooks	300.65
Head Start	103.88
Scholarship Fund	0.
Junior Scholastic	(13.81)
Home Economics	13.80
Band	11.25
Student Insurance	(10.90)
Nurse	25.02
Employees Fund	.99
Employees Group Insurance	46.68
	$9,474.01

The term "Holding Fund" properly describes the funds and the procedures in handling the funds. However, some have the characteristics of Student Activities Funds and some are not permissable. It is recommended that the Board of Trustees give attention to these accounts and abolish those that are improper and/or obsolete. It is also recommended that strict adherence to the legal requirements relating to establishment, operation, and audit of Student Activities Fund be accomplished. (See Arizona Revised Statutes, 15-1271 through 15-1274).

It is also recommended that monthly reports concerning the balances in every fund be made to the Board of Trustees. No entry had been made in the Student Activities Fund since early in December, 1965. A complete revision of accounts is necessary. Accounts should be maintained on the bookkeeping machine to insure accuracy and efficiency.

Shop funds are really district funds. The school district purchases materials and supplies for the shop. Students are charged for materials used in projects. This is a form of reimbursement and should be credited to the District Fund in the Holding account. The same is true of candy sales and magazine sales unless the sales are accomplished by a student body organization. If it is accomplished by the efforts of administration and faculty the profits are to be designated as district funds because these people are employed by the District. If funds accrue through student organization efforts, the funds are truly student funds.

The school district should maintain three separate and independent bank accounts. One should be labeled "Eloy Elementary District Funds". All fines, money from book sales, rents, cafeteria receipts, and tuition should be placed in this account and transmitted monthly to the county school superintendent. The second account should be labeled "Eloy Elementary School Activities Fund". This fund will be for student body accounts. A separate account should be maintained by the student body treasurer for each organization. Organizations should be named as follows: Student Council, Bookstore, Home Economics Club, Band Club, etc. The third account could be labeled "Eloy Elementary Trust Funds". Into this account will be placed such monies as scholarship funds and glasses. The glasses account should never be in the "red". The school district can disburse monthly the balance in the glasses fund to the Eloy Lions Club. The Lions Club purchases glasses for children. Whenever possible the parents pay for the glasses, usually in small installments, and this money constitutes the glasses account. No provision in the law is made for a "Trust Fund"; however, such a fund is needed and should be used until such time that Arizona Law prohibits the same. It should never be prohibited because there are no satisfactory provisions for handling these types of monies.

It is recommended that an annual audit of "Eloy Elementary School Activities Fund" be accomplished and that accounting procedures be modified in accordance with recommendations of the auditor.

Employee Contracts. Employee contracts are required for certificated personnel and desirable for other employees. The Board of Trustees employs personnel for the fiscal year and a contract is in existence whether or not it is reduced to writing. Teacher contracts should contain a clause worded similar to this: "No provision in this contract prohibits the district from paying employee for extra services rendered, which services are over and beyond the services required by this contract. Such services might include summer school teaching, night school teaching, or Saturday playground duty, but is not necessarily limited to these three activities".

District Accounting Procedures. District budget accounts are maintained on a bookkeeping machine and accounts are balanced with those maintained by the county school superintendent. It is recommended that the form be changed so that some encumberances might be recorded in order to prevent the district from possibly over-extending itself financially. Not all accounts need to be encumbered. The experience of the district will determine which are needed for good operation.

District Audit. The district audit is accomplished at the county level by the State Examiner's Office. Audit reports are submitted to the district periodically. Student fund audits have already been discussed.

III. DISTRICT FINANCE

Ability to Finance Education

Dedication of Citizens. The ability of a school district is dependent on the willingness of the taxpayers to finance the educational programs. Taxpayers are sometimes faced with a value system that requires a choice between buying a new boat, a new car, a second TV set, or of paying more school taxes for improved educational programs. Paying more money alone will not necessarily accomplish better programs; citizens must participate with the schools in planning and developing programs. Active and dedicated interest is as essential as money. If the citizens are not sufficiently dedicated to make choices in favor of education then a school district may not be able to finance education.

Wealth per Pupil. Another factor in determining the ability of a school district to provide adequate educational opportunities for its pupils is the assessed valuation per pupil. If insufficient wealth exists the State of Arizona provides state equalization money to help the taxpayers of the district maintain a minimum educational program. This is accomplished if the local taxpayers cannot provide an educational program equivalent to $320 per pupil with basic state and county aid and revenue generated by a $1.50 tax rate on each $100 of assessable property. Taxes for capital outlay and debt service are extra. The district's only source of revenue is from the ad valorem tax. Eloy is not a wealthy district; in fact it can be classified as a "poor" district, financially. The comparative valuations for each pupil at three levels are:

Eloy Elementary District	$ 4,764
Pinal County Elementary	10,607
State Elementary	8,089

Rate of District Growth. Another factor that must be considered when ability is being determined is the rate of growth. If a district is fast growing it receives pupils at a faster rate than new property can be placed on the tax rolls. It finds itself in need of additional school rooms and finds that the new wealth doesn't permit bonding in an amount sufficiently large to build needed facilities. Districts that are not growing in enrollment find time to catch up and pay off old debts. Eloy is not fast growing but the growth, coupled with low wealth, makes the process of obtaining adequate facilities a major consideration.

Total Property Tax. Another factor that must be considered in determining the ability of a district to support education is the demand by other governmental units for taxes. All kinds of taxes must be considered: income taxes, sales taxes, luxury taxes, fuel taxes, etc. The property taxes levied on Eloy taxpayers during the past five years are indicated in the following table.

TABLE I

PROPERTY TAXES IN ELOY SCHOOL DISTRICT, 1962-1966

Purpose	Tax Year				
	1962	1963	1964	1965	1966
Elementary District					
Maintenance	$1.9421	$1.9431	$2.3298	$2.2725	$1.7611
Adjacent Ways	0	0	.3133	.0866	.0720
10¢ Bldg. Levy	.10	.10	.10	0	.0935
Bond Interest	.1025	.0675	.0634	.2972	.1837
Bond Redemption	.3654	.3894	.3735	.5837	.5097
Sub-Total	2.51	2.50	3.18	3.24	2.62
High School-Total	1.13	1.08	1.17	1.08	1.30
Junior College	0	.0143	.0395	.0164	.0455
Pinal County	1.35	1.3557	1.7005	1.7636	1.7345
State of Arizona	1.44	1.80	1.55	1.35	1.77
TOTAL	6.43	6.75	7.64	7.45	7.47

Economy. The condition of the national economy and the local economy are important factors in determining the ability of people to support public schools. If the economy is good, and people are employed and receiving good incomes they are financially capable of supporting governmental expenditures. However, if the economy is at a low ebb the ability and consequently the willingness are often lacking. The per capita income of residents of Eloy is somewhat below that for the State of Arizona. The low assessed valuations of many houses in the community reflects the inability of many people to afford certain expenditures except for necessities. The survey team did not find any developments that lead it to predict rapid improvements in the general economy of Eloy. It appears that the district will likely be faced with financial problems in the forseeable future.

District Expenditures

The district expenditures during the past two years, along with the expenditures budgeted for 1965-66, are shown in Table II.

TABLE II

ELOY SCHOOL DISTRICT EXPENDITURES, 1963-66

Purpose	School Year		
	1963-64	1964-65	1965-66*
Administration	$ 23,314	$ 24,410	$ 28,995
Instruction	345,741	358,639	378,800
Operation	32,710	34,904	41,100
Maintenance	22,941	19,921	23,000
Auxiliary	21,192	21,716	22,500
Fixed Charges	6,817	9,481	9,300
Contingencies	6,782	4,594	7,000
Capital Outlay	23,528	17,489	27,000
Tuition	0	0	2,000
TOTAL CURRENT	483,026	491,154	539,695
Improve Adj. Ways	20,756	0	5,000
10¢ Bldg. Fund	0	8,400	6,500
Bond Interest	4,700	10,163	6,500
Bond Redemption	25,000	25,000	40,000
GRAND TOTAL	533,482	534,717	608,595

*Budgeted for 1965-66.

Debt Service

Most school districts in Arizona have had to go in debt to secure funds for building construction programs. The Eloy Elementary School District has been no exception. To vote bond issues and go in debt is good business for a school district, if it needs buildings. Money is worth its hire! The school district is able to borrow money at a low rate of interest. At the time of the survey the district was paying on four bond issues. The size of these, along with the average interest rates and maturity dates, were as follows:

Issue Series	Original Amount	Interest Rate	Maturity Dates
1951	$300,000	2-3/4 %	7-1-52/71
1954	70,000	3-1/8 %	6-1-58/71
1963	40,000	3-1/8 %	7-1-65/68
1964	385,000	3-1/4 %	7-1-65/77

Among other reasons that a bond issue is a good way to finance building programs are the following:

1. The people who will have children using the buildings in the years ahead will have an opportunity to help pay for the buildings.
2. With continued inflation the cost of buildings today will be less than the costs a few years from now. If the district waited until it had cash reserves to supply building needs the money would not buy as much building as it will in the current market.
3. By not taking the taxpayers money away from them now gives them the opportunity to invest it and realize a return on the investment.
4. Tax rates can be leveled out by long-term financing.

The total indebtedness of the district, along with the projected assessed valuations and debt service tax rates are included in Table III.

TABLE III

DEBT SERVICE AND PROJECTED ASSESSED VALUATIONS AND TAX RATES

Year	DEBT SERVICE		Assessed Valuations	Tax Rates for Bonds
	Redemption	Interest		
1965-66	$ 40,000	$ 17,400	$ 6,993,970	$ .86
1966-67	40,000	16,144	7,050,000	.80
1967-68	40,000	14,737	7,100,000	.77
1968-69	40,000	13,682	7,150,000	.75
1969-70	40,000	12,463	7,200,000	.73
1970-71	40,000	11,244	7,250,000	.71
1971-72	45,000	10,025	7,350,000	.75
1972-73	45,000	8,450	7,400,000	.72
1973-74	50,000	6,875	7,450,000	.76
1974-75	50,000	5,125	7,500,000	.74
1975-76	50,000	3,375	7,550,000	.71
1976-77	50,000	1,687	7,600,000	.68

Future bond issues will change the debt service program. The projections were made on the basis of bonds already sold and money spent. By July 1, 1966 the district will have an outstanding indebtedness of $490,000. This gives a bonding capacity of approximately $210,000 if the district should wish to bond itself to the maximum 10 per cent of the assessed valuation of the district. If such a bond issue were passed and paid off in yearly amounts of $10,000 for eleven years and at rate of $50,000 for the following four years, the district tax rate would be increased about 20-22 cents over the projections indicated in the previous table.

District Revenues

Revenues to operate public schools come from several sources. For more than twenty years the amount of state money being apportioned to school districts has been increasing. This has been true in Arizona as well as in most states. The reason for this trend is that governmental costs increase more rapidly than property values, thus the property tax represents a smaller and smaller proportion of the total taxes. Within recent years the Arizona Legislature has increased luxury taxes because the revenue was needed for schools. The Legislature also imposed an Education Excise Tax on consumers a few years ago. The tax is 50 per cent as large as the Privilege Sales Taxes. Many states have increased income taxes and have earmarked the added revenue for schools. In addition to increased State funds the Federal Government, within very recent years, has been extending a helping hand to local communities that wish to participate in the use of funds raised on an even broader tax base. The survey team commends the Board of Trustees for efforts to utilize available funds to improve the educational offerings for the children of Eloy. It is expected that federal financial assistance will be available to poor districts for many years.

IV. RECOMMENDATIONS

Among the more important recommendations that have been made in this chapter are the following:

1. An inventory system for school property should be established.
2. The amount of General Liability Insurance should be increased from $300,000 to $1,000,000 for accidents involving more than one person.
3. Purchasing policies should be established by the board and reduced to writing.
4. Policies governing the management of school property should be reduced to writing.
5. The district should have an appraisal made of all buildings and contents, and this should be maintained on an annual basis. A new appraisal should be made about every fifth year.
6. The student activities fund should be completely revised in accordance with recommendations made in this report and in accordance with legal provisions found in Arizona Revised Statutes.

CHAPTER IX

SCHOOL PLANT FACILITIES

INTRODUCTION

The physical building in which we work has an environmental influence on our lives. Our school facilities play an even more important part in the educational lives of our children because this physical plant either lends itself to developmental programs, or it restricts teaching flexibility.

A school building should realize but one major purpose -- the facilitation of the educational program. The building design should enable all aspects of the program to be implemented, developed, maintained, and improved so that equal educational opportunity may be offered to all children.

Schools should be functional in terms of what we know about the needs of children as indicated by their growth patterns, mental and emotional characteristics as well as what society expects of its children. Modern education must adapt its program to the wide differences of ability, needs and interests of children and youth it serves. In recent years science and research have given us many facts about how children grow and learn which must be considered when a school is planned or evaluated as indicated by the following principles:

> Education content and method are changing due to research and world change.
>
> Therefore: A good school should be flexible and easy to adapt to new methods, content or age served.
>
> In the elementary school lessons are taught in broad integrated units that cover many subjects: i.e., "Taking a trip" may include math, science, geography, English, foreign language, reading, writing, spelling, history, music, painting.
>
> Therefore: A good school has large amounts of varied and flexible space.
>
> The classroom atmosphere is friendly, informal and orderly. It is cooperative and consistent with ethical and spiritual values to be taught. The school plant reflects community values.
>
> Therefore: A good school is functionally beautiful. It provides classrooms protected from noise inside and outside. Seating is flexible.
>
> Learning takes place in a variety of ways reaching out into the community and outdoors.

Therefore: A good school has sound integration of classroom space with outdoors.

Good education integrates and plans its program with parents, community leaders and agencies.

Therefore: A good school is small enough that the principal and teachers may know most of the parents. It provides space for cooperative planning with the people of the community it serves.

Educational Outcomes

In elementary schools fundamental learnings include those skills and understandings necessary for more effective living in a dynamic society, and those needed as a foundation for further learning. The program involves a broad range of skills, understandings, and attitudes.

Elementary classrooms need space for both individual and group experiences. These experiences include:

Mastering the basic skills and fundamental content necessary for intelligent participation in a democratic society.

Gaining sound habits of objective thinking, and an open and inquiring mind.

Gaining confidence, self control, initiative, and respect for all that is worthy of respect.

Learning to become responsible and cooperative members of groups, school, family, and community.

Developing optimum health and physical well-being.

Developing creativeness and appreciation of the creativeness of others.

Discernible Trends

As the content of the curriculum and teaching methods change, there is a need for a corresponding change in the physical set-up of a classroom. From a rigid assign-study-recite pattern of teaching, schools are moving into a program of education that emphasizes active planning by pupils, group work on projects, individual research, and more active participation in the learning process.

Integrating of subjects into broad areas of experiences taught through a functional approach.

Providing instructional environment to meet individual needs and interests within group situations.

Pupils planning with the teacher.

Using committee organization for study and project work.

Involving parents in the instructional planning, particularly through parent-teacher conferences.

Evaluating school programs through research, testing, and group analysis.

Providing public education for children under five years of age.

Including science in the elementary curriculum.

Reducing size of elementary schools and classroom groups.

Increasing use of first-hand experiences in instruction.

Increasing use of TV, radio, projection materials, and illustrative materials.

Incorporating instruction of the gifted and handicapped within the regular elementary school program.

Organizing ungraded primary units.

Integrating classroom space with outside.

Learning Activities

Although we know that future developments will bring changes in elementary education, it appears that certain aspects of the stated purpose and to a degree the program, have been fairly well established at this time. The contemporary elementary school program seems to be distinguished from that of the past in that its primary emphasis is "learning by doing"; a program where children may be found actively and purposefully engaged in problem-solving, life-adjustment experiences, both individually and collectively, under the guidance and direction of skilled teachers. Presently, the whole child and his growth in all aspects is the purpose of teaching. This growth is brought along through learning activities, directed by a skilled teacher, in classrooms that have adequate space, instructional materials and equipment, and in an adequately controlled environment which has proper attention for the aesthetic necessary to achieve the desired goal.

A properly designed elementary school classroom should be arranged so that the following learning activities may be promoted:

1. Small groups working together.
2. Committee work.

3. Ability grouping for study and work.

4. Play and work activities which bring each child in close contact with every other child in the room.

5. Experimental opportunities.

6. Problem-solving situations.

7. Situations involving the use of audio-visual aids, both mechanical and electronic.

8. Activities involving the use of a variety of reference materials.

9. Activities involving the development of cultural skills, such as dramatics, singing, rhythm, dancing, music appreciation, painting, drawing, construction, and modeling.

10. Activities using real-life situations.

11. Group construction.

12. Display of individual and group work.

13. Practice of good health habits.

14. Exploring and investigating areas of special interest.

15. Activities planned to develop good leadership and followership roles.

It is not intended that the foregoing list should be considered all-inclusive. It is, on the contrary, a suggested list of activities which may be expected to be carried on in the typical elementary classroom.

The self-contained classroom will not meet all of the needs of the modern elementary school. There are many learning activities which may be carried on outside the regular classroom. Additional space should be provided for large group activities which may include at any given time pupils from several classrooms. Among these activities are physical education, instrumental and choral music, drama, dancing, and other large group activities.

In addition to the regular classrooms, large-group activity areas, and the spaces devoted to the administration, operation and maintenance of the typical elementary school plant, adequate space for the typical outdoor-type activities must be provided. Activities, both organized and free, on the elementary school site outside of the building are many and varied. Each demands space just as much as do the activities within the building. School sites then, should provide for current program needs and demands plus an allowance for future change.

I. EVALUATION OF EXISTING BUILDINGS

Eloy South School

The Eloy South School was constructed during the 1950's. It is located on a five acre site on West Alsdorf Road. This building is a cement block finger-type structure similar to the Eloy Primary School. It consists of the following areas:

4	General Classrooms
1	Multi-purpose room
1	Boys' Restroom
1	Girls' Restroom
1	Teachers' Workroom (Trailer)

Structural Analysis. The foundation appears to be in good condition. However, several minor cracks were noted in the walls of the building. There are several cracked or broken windows. These should be replaced as soon as possible. The roof appears to be in good condition.

The door on room #2 needs to be repaired. All surfaces need to be painted and a definite schedule for repainting should be established.

Service Systems. Heating is provided by ceiling suspended gas-fired units. Cooling is provided by roof-mounted evaporative coolers. All units appear to be in fair to good condition. The lighting system is deemed adequate.

Chalk and Cork Boards. There is approximately twenty-four lineal feet of chalkboard and twenty-four lineal feet of corkboard in each classroom. This is considered adequate. All boards appear to be in good condition.

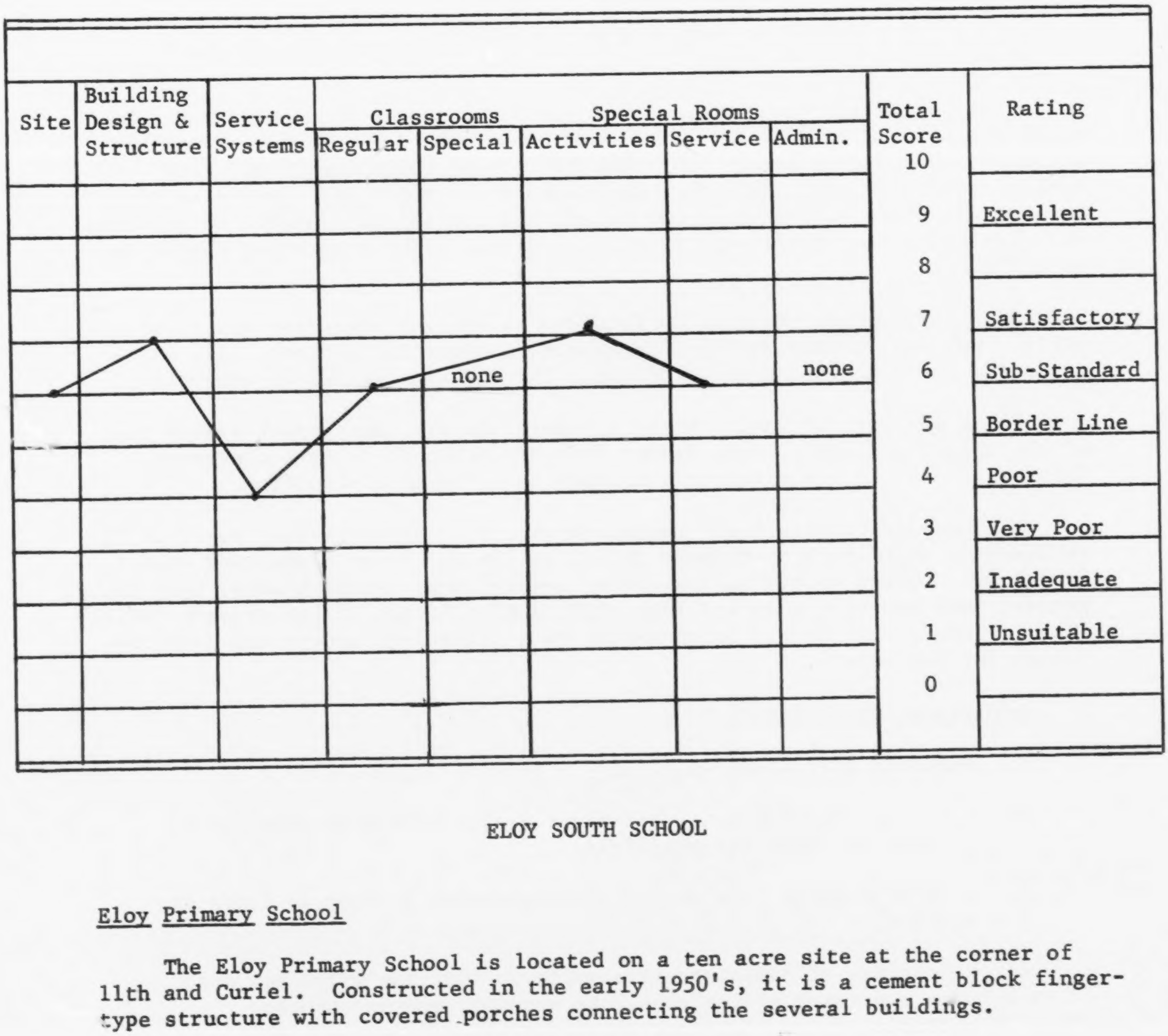
Recommended Utilization. It is recommended that the Eloy South School be used for kindergarten classes. Enrollment figures indicate that there are enough kindergarten-age children in the school district to require four full-time teachers. (Eight sections). If an additional classroom is needed in the future, part of the multi-purpose room could be used for this purpose.

Additional Requirements

1. Surfaced play areas
2. Playground apparatus
3. High-power electric lines that cross the playground should be re-routed or placed underground
4. Playgrounds should be grassed

5. Front yard should be landscaped

The overall rating of this school is sub-standard.



ELOY SOUTH SCHOOL

Eloy Primary School

The Eloy Primary School is located on a ten acre site at the corner of 11th and Curiel. Constructed in the early 1950's, it is a cement block finger-type structure with covered porches connecting the several buildings.

The school includes the following basic areas:

21	General Classrooms
1	Administrative Suite (Office, nurse, teachers' workroom)

3 Boys' Restrooms

3 Girls' Restrooms

3 Storage Rooms

1 Cafeteria (war surplus building)

Structural Analysis. Foundations and walls are in good condition. No major cracks were noted. All metal sash needs painting. Broken or cracked windows should be replaced. All doors need to be refinished. All roof decking needs painting and some boards need to be replaced. Extensive roof repairs are needed and when accomplished, all ceiling tile should be painted. All classrooms need painting. A definite schedule for repainting should be established.

Service Systems. Heating is provided by ceiling suspended gas-fired units. Cooling is provided by roof-mounted evaporative coolers. All units appear to be in fair to good condition. The lighting system is adequate.

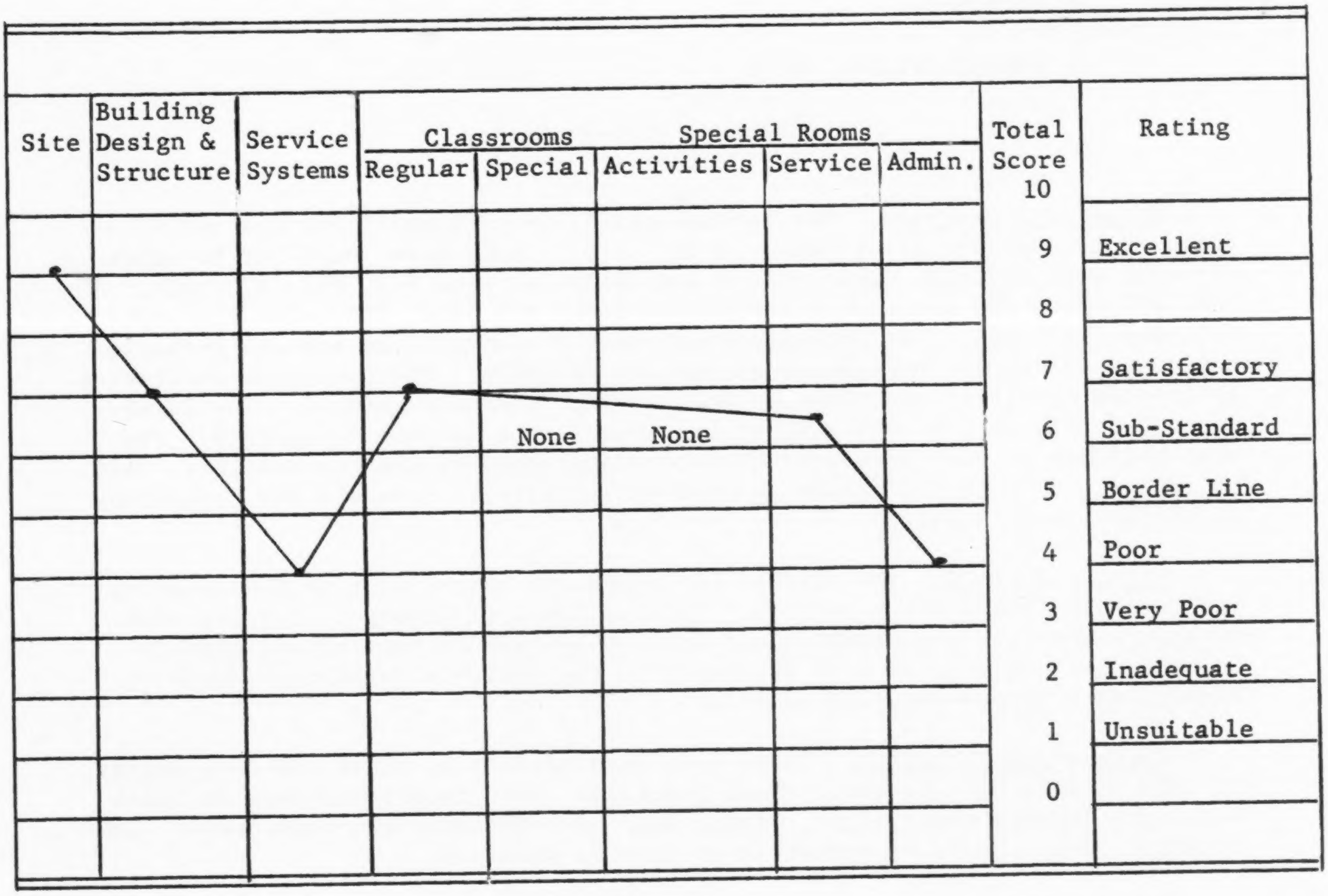
Chalk and Cork Boards. There is approximately twenty-four lineal feet of chalkboard and twenty-four lineal feet of corkboard in each classroom. This is considered adequate. All appears to be in good condition.

Recommended Utilization. Beginning with the 1966-67 school year, it is recommended that the Eloy Primary School be changed to an elementary school, grades 1-5. There should be four first grades, four second grades, four third grades, four fourth grades and four fifth grades housed in the present facilities. Classroom #8 should be converted to a Library-Instructional Materials Center for the school.

Additional Requirements

1. Surfaced play areas
2. A Library-Instructional Materials Center should be constructed as soon as funds are available.
3. A Multi-purpose room should be constructed as soon as funds are available.
4. Remodeling of administrative suite so that the principal can have a private office should be accomplished as soon as possible.

The overall rating of this school is sub-standard.



ELOY PRIMARY SCHOCL

Eloy Central School

Central School is located at 5th and D Streets. It is the oldest school in the district and is located on a ten acre site. The eleven separate buildings include the following areas:

16	Standard Classrooms
10	Temporary Classrooms
1	Library
1	Home Economics Room
1	Shop
1	Gym-Auditorium
3	Boys' Restrooms
3	Girls' Restrooms
1	P.E. Dressing Room
1	P.E. Shower Room
1	Teachers' Lounge (Women)
1	Teachers' Lounge (Men)

1 Cafeteria

1 Administrative Suite

1 Nurses' Office

1 Music Room

Miscellaneous Storage Areas

Structural Analysis. The general condition of foundations and walls in rooms #2 through #10 is average. A few minor cracks were found but no major problems were noticed. Foundations and walls in rooms #16, #17, #18, #19, #20, #21, #22, #23 are considered good. Rooms #11, #12, #13, #14, #15, #24, #25, #26, #27, #28, P.E. Dressing Room and P.E. Shower Room are all portable buildings and should be removed as soon as possible. The gymnasium-auditorium is in good condition and very adequate for an elementary school. The steel frame building on the east side of the school site is considered good. The shop building is very poor and should be demolished as soon as possible. All buildings need painting inside and out and a definite schedule for repainting should be established.

Service Systems. The several buildings are heated by gas-fired heaters and cooled by evaporative coolers. Various types of lighting fixtures were noted. A general renovation of all service systems in this school plan is recommended. Salvage of good equipment in the portable buildings should be accomplished before they are removed.

Chalk and Cork Boards. There is a wide variety of chalk and cork boards in this school, both in quality and quantity. Each room could have at least eighteen, ideally twenty-four, lineal feet of both chalk and cork board. Substandard rooms should be remodeled as soon as possible.

Recommended Utilization. It is recommended that the Eloy Central School be converted to an elementary school, grades 1-5. There should be six first grades, four second grades, three third grades, three fourth grades and three fifth grades beginning with the 1966-67 school year. It is further recommended that rooms #13, #14, #15 (portables) be used until permanent classrooms can be constructed. However, they must be extensively renovated during the coming summer months.

Additional Requirements

1. Playgrounds need renovating and playground equipment for grades 1-5 should be installed.

2. The restrooms in the old main building must be completely renovated or closed.

3. Acoustical tile needs repairing in some rooms, needs to be installed in other rooms.

4. Darkening drapes are needed in at least every third classroom.

5. Additional landscaping is needed around all buildings. Small spaces between buildings that handle heavy foot traffic should be paved with asphalt or cement.

6. The home economics equipment should be moved to the new Eloy Intermediate School. Existing home economics room can be used for a general classroom or converted to a district maintenance shop.

7. The library should be air-conditioned immediately.

The overall rating of the school is poor.

Eloy Intermediate School

The new Eloy Intermediate School is located on a twenty acre site at the corner of W. Phoenix Avenue and N. Santa Cruz Streets. Constructed of burnt adobe, it includes the following basic areas:

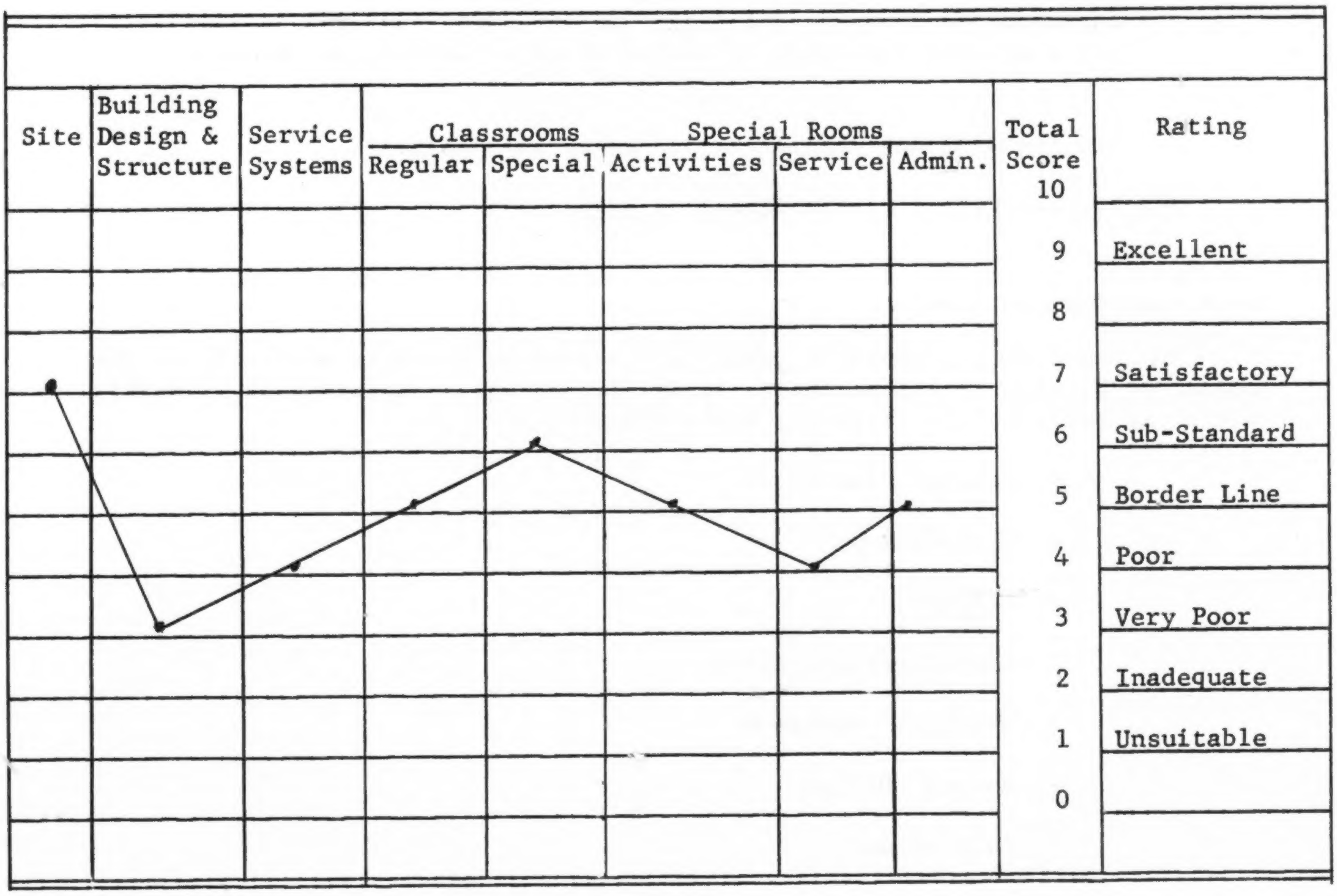
19	General Classrooms
1	Science Room
1	Library
1	Administrative Suite
1	Teachers' Workroom
1	Nurses' Office
1	Cafetorium

Structural Analysis. Since this is a new building, no structural analysis was made.

Service Systems. The building will be heated and cooled by a central air-conditioning system. The lighting system appears to be adequate.

Recommended Utilization. It is recommended that the new Eloy Intermediate School house six sixth grades, five seventh grades and five eighth grades. One general classroom should be converted to a Home Economics room using equipment presently located at Central School. Also, one general classroom should be converted to a temporary shop using salvagable equipment from Central School, and one general classroom should be converted to an art room. Physical education dressing and shower rooms for both boys and girls should be constructed as soon as possible.

The overall rating of this school, when recommended alterations are accomplished, will be good.



ELOY CENTRAL SCHOOL

II. SUMMARY

1. The physical plant facilities of Eloy School District cannot be given a general rating as some are good and others are sub-standard. When the sub-standard rooms are removed from the Central school site and improvements added at the Intermediate school, the facilities will be very satisfactory. There is evidence that the District has the desire to provide good facilities for the educational program.

2. Improved custodial and maintenance schedules and procedures should be established to insure proper up-keep of all buildings.

3. All sites are considered adequate and should be satisfactory for many years to come. However, more landscaping and surfaced play areas should be added as soon as possible.

4. Physical education dressing and shower rooms should be constructed at the new Intermediate School as soon as possible.

5. A permanent shop building should be constructed at the Intermediate School as soon as possible.

6. Except for the new Intermediate school, all buildings should have complete air-conditioning equipment installed when possible.

7. Water service and sinks should be installed in all existing and future classrooms.

CHAPTER X

RECAPITULATION, SUMMARY, AND CONCLUSIONS

The report of the survey contains numerous suggestions and recommendations covering all subjects of the curriculum, as well as recommendations pertaining to organization and administration of the school, special educational services, pupil personnel services--including transportation, health services and food services--in addition to recommendations concerning personnel, finance and business management and modification of existing educational facilities.

Chapter IV of the report of the survey contains numerous suggestions and recommendations concerning all subjects of the curriculum which should assist the Eloy School staff in its efforts to improve the educational effectiveness of the school program. Recommendations pertain to modifications of the instructional program, including curriculum reorganization, time allocations for certain subjects, and subject matter content; supervision and/or reorganization of respective facets of the program; control and distribution of instructional media and materials, plus equipment; recommendations concerning staff additions and/or reassignments; programs of in-service education; (and) suggestions for modification and/or reinterpretation of the place and function of educational leadership in the school district and in the respective school plants therein.

A summary of the findings, observations, conclusions and recommendations contained in the reports submitted by all members of the survey staff presents a revealing and comprehensive picture of the Eloy School District.

It should be emphasized that the recommendations included in this report were not intended to be received as a "package" and implemented as such. Rather, the entire list should first be viewed conceptually; that is, as a comprehensive list from which discriminating priorities can then be developed. Higher priorities should then be assigned to those items which the board, the administration, and the school staff, determine to be in need of prompt attention. Lower priorities should be likewise assigned to other recommendations so that improvement in the educational program is systematically and steadily accomplished.

The overall purpose of this comprehensive survey has been to focus concentrated attention on all aspects of the school program in an effort to analyze the strengths and weaknesses, and to present recommendations for future improvement. Specialists in all major areas of school operation served as survey staff consultants studying and observing the program and facilities in addition to conferring with members of the administration and the teaching staff.

The survey staff desires to emphasize at this point that the recommendations contained in the report of the survey were intended for use in assisting members of the school staff and the Board of Trustees to make decisions which will ultimately lead to the strengthening and improvement of all aspects of the operation of the Eloy School District.

In order to make wise decisions establishing priorities for the future development and improvement of Eloy School District, those charged with these responsibilities must do so in terms of intelligent guidelines. It is respectfully suggested that all future decisions be made in terms of "What is best for the children attending Eloy Elementary Schools?" or "What kinds of educational experiences are most desired for the children of the Eloy School Community?" It should be remembered that education for excellence can be achieved only when school programs are planned to develop in each child the desire to learn, in an atmosphere replete with appropriate facilities, adequate tools and competent educational leadership and staff.

The values--particularly the long range values--to be derived from a survey staff visitation are often unpredictable and (also) sometimes inestimable. However, when interested and informed people are brought together to analyze and discuss problems of common professional concern, benefits usually accrue to all participants.

Visiting staff consultants and school staff members exchanged views on such matters of common interest as the following: the nature and growth of children; techniques of effective teaching; problems concerning the mental, emotional, and physical well-being of children; new guidelines for effective instruction in separate subject areas; availability, quality, and appropriateness of newer materials and media of instruction; innovations in scheduling of instruction; newly developed criteria with which to identify or measure excellence in education; (and) the evaluation of the condition of buildings and facilities. Other problems discussed were related to: finance and business management; personnel administration and special educational services; school administrative organization and/or reorganization; (and) the assembling of information needed to make pupil population projections required to estimate future requirements of facilities and personnel.

The philosophy underlying the visitation evaluation in connection with the survey was that school systems can--and should--be evaluated in terms of their respective philosophies and objectives. The conclusions, and particularly the recommendations which appear in the respective sections of this report were developed to assist the Board of Education, teachers, administrators and patrons of the school district who are interested in exploring new and promising approaches to educational program improvement.

The survey staff wishes to commend the Board of Trustees of the Eloy Elementary School District and the administration for having the foresight and willingness to authorize and cooperatively engage in a study of this type. This demonstration of leadership, foresight and cooperation means that all members of the Board of Education, together with their administrative leaders, were interested in searching for ways and means to improve the educational opportunities for the youth in the schools under their direction.

It should be noted that among the many recommendations submitted by the members of the survey staff, a number referred to the appointment or selection of additional staff members. The directors of the survey did not discourage survey staff consultants and specialists from making such recommendations, even though the latter could not have been completely aware of either the total instructional needs in all subject areas, or of the school district's current ability to finance such additional undertakings. It was decided that the inclusion of these recommendations would serve to draw attention to some of the areas of greatest concern as seen by the specialist consultants on the survey staff. Even though the total resulting recommendations (including staff additions) may appear to be unrealistic when viewed in toto, members of the Board of Trustees and the administration cannot afford to ignore the conditions which prompted survey consultants to make these recommendations in the first place. Furthermore, when these recommendations are considered over a period of years, they become parts of a long-range pattern of realistic and necessary growth and development.

Major Recommendations

The directors of the survey have identified specific problem areas which were noted during the course of the survey, together with recommendations for alleviating poor conditions or otherwise strengthening the program, or eliminating the problem entirely. The recommendations were intended for use in improving the total school program in Eloy School District during the coming years. Major recommendations concern themselves with the following problem areas:

1. School District Organization and Administration

Major recommendations:

A. It is recommended that the Board of Education set aside part of their regular meeting once a month throughout the school year to hear reports concerning aspects of the educational program to be delivered by members of the professional staff.

B. It is recommended that Board policies be developed in writing, properly codified and brought up to date, and kept that way. Policies should be printed and made available to appropriate persons in the school district and the community (loose leaf form is recommended).

C. It is recommended that more careful attention be directed to certain factors concerning the official minutes of the school district. A carbon copy of the minutes should be made and placed in safe keeping, preferably in a fire-proof vault.

D. It is recommended that written job descriptions be developed for all school district positions, professional and classified.

E. The primary school, Central school, and the new upper grade school are now sufficiently large as to require full-time principals for each institution. It is feasible that the superintendent could (also) serve as principal of the upper grade school, but this would not be the optimum arrangement. A head teacher should be designated at South School. He (or she) would also have full time teaching responsibilities.

The head teacher would serve under the administrative direction of the principal of the primary school. Adequate clerical assistance should be provided administrative personnel so that their full attention may be devoted to the important administrative responsibilities of the district--particularly educational leadership.

2. Pupil Population Data

A. A yearly revision of the membership table in this survey report is highly desirable, even essential, to long and short range administrative planning for the school district.

B. A serious attempt to alleviate the over-age problem in Eloy School District is crucial. An analysis should be made of the age-grade data each year and special attention given to the over-age pupils to determine the best educational program for them. It is generally agreed upon by educators that more harm than good results when pupils are held back for more than two years in the first eight grades.

C. The California Test Bureau's service was considered excellent; however, in the interest of checking the reliability and/or validity of the test results, it would be advisable to explore other possibilities such as Science Research Associates, Houghton-Mifflin, Educational Testing Service, and Harcourt-Brace & World.

D. It is recommended that the test services provided by the California Test Bureau be more fully utilized by the school district's classroom teachers and specialists. This could readily be accomplished by an in-service program in test and measurement techniques and interpretation.

3. The Educational Program

A. It has been recommended that the program of reading instruction provide more emphasis on reading for meaning. Also needed are certain adjustments of program content in order to implement a program better adjusted to individual pupil maturity.

B. The need to organize the instructional staff for the purpose of identifying the major purposes of the social studies in each of the several grades have been carefully pointed out in the report of the survey. A strong program of in-service education for the entire staff has been recommended. The unit approach to the social studies has also been recommended, in addition to certain changes in teaching procedures to include some provision for teacher-pupil planning. Above all, it is strongly recommended that the social studies be given a specific time allocation in the school program schedule instead of being taught largely incidental to the rest of the program

C. The need for the development of an all-district curriculum committee composed of teachers from all grade levels, and administrators, has been pointed out. Such an all-district curriculum committee and its subsidiary committees dealing with the separate subject areas could--and should--become strong and effective instruments for improving the instructional program in the Eloy Elementary Schools, in all grades and in all subjects. The specific duties and responsibilities of these important committees are listed at the end of Chapter IV in the survey report.

D. It is strongly urged that consultant help be provided to curriculum committees (See Item "C" above) in order that they may have the qualified leadership and direction needed to achieve maximum success.

E. Special recommendations designed to enrich and improve the teaching of specific subjects may be found in the appropriate sections of the survey report in Chapter IV. All teachers are urged to study this section carefully.

F. The report indicates that the present program is heavily based on the mastery of skills, and language and that it is heavily weighted with phonics and word drill. This emphasis on limited areas of language arts has led to a neglect of certain other important types of language learning, including oral and written language expression, and other uses of creative language. The survey staff strongly urges that attention to these conditions be accorded the highest priority. In addition, the relationship of language learning to the other areas of the curriculum (e.g. art, social studies, music, science, and physical education) should likewise be given diagnostic study and remedial attention.

4. Special Educational Services

A. Foremost among the recommendations in this area is one pertaining to the procurement of qualified, certificated, library service personnel. Whereas the library consultant specifically recommended the employment of a teacher-librarian for the new upper-grade school, plus a certificated teacher-librarian for the Central school (who would also give assistance to the other lower grade schools). The survey staff suggests a possible alternative of employing educational aides in each of the lower grade schools. These aides, serving under the direct supervision of the teacher-librarian, could possibly give extensive library service at minimum cost to the school district.

B. The great need for much additional library material--fiction and non-fiction--has also been pointed out in the report. It is strongly urged that responsible school staff members give careful attention to this section of the survey report.

C. The need for specific standards governing all areas of library materials and services has been pointed out in the report, together with recommended steps for achieving satisfactory levels in these areas. It is suggested that the recommended steps be used as guidelines for evaluating degrees of progress in the years to come. The survey staff strongly recommends that the section on library services be carefully read by all members of the school staff and members of the school board. Recommendations concerning the provision of annual budgeted district funds --plus obtaining federal funds for which the district is currently eligible--are important highlights.

5. Audio-Visual Education

   A. Recommendations pertaining to the need for qualified personnel and/or consultant assistance are perhaps the most important in this section; however, additional recommendations pertaining to the need for an audio-visual in-service education program to help teachers should not be minimized. The need for quantities of additional materials and equipment is also pointed out in the survey report, together with suggested ways and means for establishing a program of long-range procurement designed to bring the school district up to adequate standards.

6. Guidance and Special Education

   A. The absence of an organized and established guidance program has been recognized in the survey report and specific recommendations for establishing the beginnings of an effective program have been included in Chapter V.

   B. A comprehensive program of staff in-service education has been recommended along with specific recommendations for the development of a school district program of special education for exceptional children. Recommendations for actually implementing a program of special education in depth may be found in the body of the report, including guidelines for investigating the availability of additional funding assistance to support such a program.

7. Pupil Personnel Services

   A. It is recommended that greater effort be made to correlate both food and health services with the instructional program.

   B. It is recommended that more complete staffing be provided in the area of health services, and that the services be broadened to include attendance services also.

   C. It is recommended that more systematized procedures be developed for the purchasing of food and transportation supplies.

   D. It is recommended that all staff members engaged in pupil personnel services be provided the opportunities (and urged) to participate in appropriate in-service education programs designed to raise personal and professional competence in this important area.

   E. It is recommended that cooperative long-range planning be developed by the Board, administration and appropriate staff members for the replacement and/or repair of transportation and food services equipment.

8. Staff Personnel

A. It is recommended that monetary incentives for graduate degrees beyond the Bachelor's Degree be increased in order to stimulate greater interest on the part of professional staff members to work toward higher degrees--and thereby improve their professional competence and effectiveness.

B. When feasible, the over-all professional salary schedule should be raised in order to place the district in a more competitive position to attract and hold qualified staff members.

C. A master plan for the provision of in-service programs for staff members should be developed and then implemented as an on-going function of the school district's program of staff personnel services.

D. Sick leave benefits for both professional and classified employees should be expanded. Minimum recommendations would be as follows: Teachers--ten days sick leave per year. Classified personnel--one day per calendar month.

E. It is recommended that the school district's present policy governing employee residence in Eloy as a condition of employment be rescinded. Although the survey staff recognizes a number of reasons or pressures have been used to justify the continuance of such a policy, the reasons for rescinding the policy far outweighs any combination of reasons that could possibly be mustered in defense of retaining the present policy. The school district can only lose if it continues to enforce such a policy. Adequate housing conditions--either in quality or number--do not presently exist in the community to support this policy. Even if they did, such a policy would automatically limit the number and quality of teacher applicants - ultimately at the expense of educational opportunities for children.

9. Finance and Business Management

A. An inventory system for school property should be immediately established.

B. The amount of general liability insurance should be increased from $300,000 to $1,000,000 for accidents involving more than one person. Written purchasing policies should be developed and adopted by the Board of Trustees.

D. Policies governing the management of school property should also be developed and reduced to writing.

E. The school district should have an appraisal made of all buildings and contents and this written document should be updated and maintained on an annual basis. A completely new appraisal should be commissioned about every fifth year.

F. Students activity fund policies should be revised in accordance with recommendations made in the body of this report (Chapter VIII) and in accordance with legal provisions found in *Arizona Revised Statutes*.

10. Educational Facilities

A. The physical plant facilities of the Eloy School District could not be given a general rating, inasmuch as some were in good condition and others sub-standard. When--and if--the sub-standard classrooms and facilities are removed from the Central School site, and improvements added at the intermediate school, the school district's facilities will then be quite satisfactory. The survey staff recommends--and sincerely hopes--that the community give strong support to the Board of Education in its obvious desire to provide good housing and facilities for the elementary program of education.

B. It is strongly recommended that written custodial and maintenance schedules and procedures be established to insure adequate upkeep of all buildings.

C. With the exception of the new school, all buildings should have complete air-conditioning equipment installed as soon as possible.

D. Physical education, dressing and shower rooms should be constructed at the new intermediate school for obvious reasons.

E. A permanent industrial arts facility should be constructed at the new intermediate school as soon as possible. Otherwise it will be quite impossible to offer a comprehensive modern program of education to children in the upper elementary grades.

F. All school sites were considered adequate and should prove to be satisfactory for many years to come. However, additional surfaced play areas should be provided and more landscaping is highly recommended.

In Summary

The survey staff has attempted to look into all facets of the program of education provided by the Eloy Elementary School District, including facilities, curriculum, personnel, finances, maintenance and operations, and general administration. Perhaps foremost among the problems noted is the need for an articulated, sequential plan of subject presentation in all grades in all schools. Problems concerned with the procurement and coordination of appropriate instructional materials, plus improvements in programs of audio-visual education and special educational services are other matters of prime importance.

It has also been strongly recommended that a long-range program of in-service education be carefully planned and jointly implemented by members of the administration and the teaching staff, assisted by competent professional consultants. The district superintendent should provide leadership here, especially through giving encouragement to the fullest active participation by the school staff in the various professional in-service undertakings. Teachers and other school staff members should be invited to participate in the development of specific plans for a three to five year intensive program aimed at up-grading the personnel and professional effectiveness of every teacher in the school system.

Administrators should be expected to take the necessary time to provide the highest type of continuous educational leadership, leaving (more and more) administrative details and clerical duties to be handled by employees who are retained (and trained) to do this.

The entire area of special educational services deserves careful - and immediate - attention. Programs related to early childhood education (e.g. "Head Start", etc.) should be given thorough backing and careful administration in order to provide the unique instructional experiences so greatly needed by economically and culturally deprived children. This would include effective early language training now so lacking in the personal experience of many of the school district's pre-school children.

Although the procurement of additional part-time and full-time curriculum specialists should be facilitated, it would not be reasonable or realistic to recommend at this time the addition of numerous full-time curriculum specialists to the school staff. It is, however, recommended that funds be provided in the district's annual budget to provide for the employment of part-time consultant specialists to serve in support of the school staff to promote its own professional improvement through a program of in-service education.

This survey report contains my suggestions and recommendations covering all aspects of the operation of the school district, and all subjects of the curriculum. All recommendations were intended to assist the Board of Education and staff members of the Eloy School District to improve the educational effectiveness of the total institution served by them. Many recommendations pertain to modifications of instructional programs, including curriculum reorganization, time allocations for certain subjects, and subject matter content. The need for additional staff assistance to provide more effective instructional leadership has already been pointed out. The procurement, distribution and control of instructional media and materials and equipment, including books and other audio-visual materials, have been dealt with in depth in the report of the survey. Staff additions and/or reassignments have been recommended in various sections of the report; attention has also been called to some specific limitations contained in these recommendations. Recommendations have included many pertaining to in-service programs, in addition to a number of others which refer to the modification and/or addition of facilities and equipment.

It should (again) be emphasized that recommendations included in this report were not intended to be taken as a "package". The total survey report should be viewed as a comprehensive list from which specific priorities should be selected. A number of items have been singled out for high priority consideration by the survey staff, but all final decisions must, rightfully, be left with the Board of Trustees and the staff of the Eloy School District to determine which items shall be scheduled to receive prompt attention. Lower priorities should likewise be assigned to other recommendations so that improvement will be systematically realized.

The survey staff wishes to emphasize that many elements of quality were observed during the course of the survey, and the Board of Education and professional staff members should be commended for the obvious efforts being made to provide good educational opportunities for youngsters. There appeared to exist excellent rapport among the students, teachers, and administrators in the schools visited. School staff members, in general, appeared to be greatly interested in children as individuals and were striving to maintain the excellent, personal relations already established. General behavior of all students observed in the course of the survey staff visitation was very satisfactory.

Over the years in each of the separate school communities in Arizona and other states, school boards and school staffs have faced problems and made decisions resulting in changes in the development of the educational programs in their respective communities. The Eloy School District is not an exception. New decisions are now in order so that pupils attending the Eloy Elementary Schools will be guaranteed educational opportunities of improved quality--so necessary for future personal and vocational success; and so important to the future of our nation.

The decisions to be made by the Board of Education will largely determine the degree of educational excellence that will be ultimately achieved by the Eloy School District. The importance of these decisions require that members of the community, members of the school staff, and the Board of Education work cooperatively in the interests of total school-community improvement. Nothing less than enlightenment, intelligent foresignt, professional leadership and community statesmanship are called for at this time. If all parties having a "stake" in the community's schools will come together with a determination to work for improvement there is no question but that the Eloy School District can achieve a high degree of excellence for its educational program--and a better community as well.

In conclusion, members of the survey team wish to thank the Board of Trustees, and all members of the school district's staff, for the many courtesies extended to them during the course of the staff visitation.

Arizona State University places great importance on its ability to be of service to public schools in our state. The survey staff shall therefore continue to hold a more-than-ordinary interest in the future success and achievements of the Eloy Elementary School District.